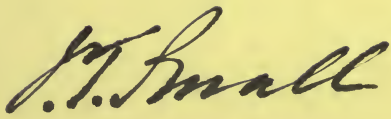

THE

PATHOLOGY AND TREATMENT

OF

VENEREAL DISEASES.

THE

PATHOLOGY AND TREATMENT

OF

VENEREAL DISEASES,

COMPRISING THE MOST RECENT DOCTRINES ON THE SUBJECT.

BY

JOHN HARRISON, F.R.C.S.

LONDON:

SIMPKIN, MARSHALL, & Co.,

STATIONERS' HALL COURT.

MDCCCLX.

WESTMINSTER:
PRINTED BY THOMAS BRETTELL, RUPERT STREET, HAYMARKET.

THOUGH much has been written on Venereal Diseases, it is especially in the medical literature of the last thirty years we find that elucidation of their pathology, and that simplification of their treatment, which have imparted as completely a scientific character to the subject, as almost any other department of medicine can lay claim to.

It is this scientific character which gives an interest to an otherwise repulsive study and practice, scarcely to be believed possible by those who have not engaged in them.

In the present Work, I have endeavoured to describe the Diseases in their different forms and stages, to trace out their natural history, and to lay down that plan of treat-

ment which a lengthened experience has taught me. It is especially for the guidance of Young Practitioners that I have written —of those who have not had sufficient opportunity of clinically studying cases of the kind, and who, therefore, when first called on to treat them, frequently find themselves at a loss how to act.

JOHN HARRISON.

Albany Court Yard, Piccadilly,
London, 1860.

CONTENTS.

Part I.

PATHOLOGY.

CHAPTER I.

CHAPTER II.

CHAPTER III.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

CHAPTER XI.

CHAPTER XII.

CHAPTER XIII.

CHAPTER XIV.

CHAPTER XV.

Part II.

TREATMENT.

CHAPTER I.

CHAPTER II.

CHAPTER III.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

THE

PATHOLOGY AND TREATMENT

OF

VENEREAL DISEASES.

PART I.

PATHOLOGY.

CHAPTER I.

CHANCRES.

After promiscuous sexual intercourse, a previously healthy person is liable to have an outbreak of sores on the genital organs. This is owing to inoculation with the matter of similar sores affecting the parts of the other individual with whom the intercourse occurred. The delicate vascular surface of the healthy parts, especially if the seat of an abrasion, coming in contact with the morbid matter, there follows, in due time, an inflammatory patch, accompanied with itching, on which a pustule rises. This bursts and leaves an ulcer. When a small wound already exists to which the poisonous matter is applied, ulceration may take place at once, without the previous formation of a pustule. Some persons appear to be less liable to the contraction of venereal

sores than others, although exposed to the same dangers of infection. The cause of this, as regards men, will perhaps be found in the circumstance, that the muco-cutaneous surface of the glans has become thickened and callous from exposure, so that it is not so liable to be abraded in copulation, while absorption is at the same time rendered more difficult.

Of the sores which present themselves on the genital organs, after promiscuous sexual intercourse, there are two principal kinds :—one distinguished as the true syphilitic chancre—the other as the false or simple chancre. Both are contagious, but it is from the former only that secondary or constitutional symptoms arise; though it is the latter which is most commonly attended by suppurating bubo, and may be complicated with phagedena.

The true syphilitic chancre ordinarily breaks out in about a fortnight after the impure connection, though sometimes later. It is usually solitary; or if there be more than one, they all appear at the same time. The ulcer may be described as a small circular excavation on an indurated base; its borders red or dark red and swollen, and its bottom covered with a greyish matter, consisting of broken up epithelium, suspended in a serous fluid: sometimes the sore is dry. True syphilitic chancre (named also *indurated*, from the induration of its base) is indolent, and unattended by much, if any, local distress. The ulceration, which is generally preceded by a vesicle

or pustule, may extend in breadth and depth and then remain stationary for a variable period; after which, the inflammatory redness and swelling of the borders will perhaps subside, and granulation commence. Cicatrization next takes place, sometimes pretty quickly, sometimes more slowly. Induration of the cicatrix, however, and a tendency to a new outbreak of the ulceration may remain. Recently healed sores are, indeed, very liable to break open afresh from slight causes—more particularly if the cicatrix be a raised and indurated one. A newly formed cicatrix being abraded or broken, from whatever cause—certainly without any specific cause—the abrasion is frequently disposed to degenerate into a tedious and indolent form of ulceration.

The induration of true syphilitic chancre is owing to a circumscribed deposit of lymph at the place.

After a true syphilitic chancre has healed, the patient's health may be no further disturbed. Very often, however, symptoms of constitutional infection supervene, viz.—cutaneous eruptions, sore throat, &c. Such are named the *secondary* symptoms of syphilis, while the chancre or chancres, from which they spring, are named the *primary* symptoms. As a true chancre does not appear for a fortnight or three weeks after inoculation, there is ample time for the system to become infected with the syphilitic poison, before the patient is aware that he has contracted the disease at all. From this, we may infer that the peculiar deposit of lymph, on which the

induration of the base of the chancre depends, is owing to the already altered condition of the blood. From this also, we may infer that how quickly soever the chancre may heal, the patient is not secure against the outbreak of secondary symptoms.

Secondary symptoms generally occur between the first and fourth month—in forty-six days on an average—after the outbreak of the primary sores—seldom before the fourth week or later than the sixth month. Long after this, however, and when the patient, perhaps, supposes himself cured of his disorder, a new series of constitutional symptoms, designated *tertiary*, may manifest themselves.

The false or simple chancre is without induration of base, hence it is also named *soft* chancre. Though, in consequence of inflammation, some degree of hardness may exist around it, this is diffused, not so circumscribed and solid as in true chancre. It is particularly in strumous subjects that induration is met with attending simple chancre. On the other hand, true chancre in the form of mere erosion of the surface of the glans without induration, and followed by roseolar eruption, is not uncommon. Simple chancre sometimes arises from a pustule, but often succeeds at once to a mere abrasion. There are usually several of them; but, instead of appearing all at the same time, like true chancre when there happens to be more than one, they appear in succession. The outbreak commences in about a week, sometimes only a day or two, after

the intercourse in which the contagion was received. Simple chancre is of a more acute character, and more painful than the true chancre. It differs from the latter, also, in presenting a purulent secretion with fungous granulations, and in having little disposition to spread, though sometimes extending in depth.

Venereal sores of this kind are not liable to be followed by secondary symptoms, but suppurating buboes are of common occurrence in connection with them.

Simple chancres are much more frequently met with than true chancres—in the proportion, it has been reckoned, of about two to one.

True chancre and simple chancre are transmitted as two distinct kinds, without being transformed into each other; but either may be grafted on the other.

The above are the broad features of the two principal kinds of chancre; but it is to be remembered that there are many modifications and gradations, so that, in truth, no exact or definite description can be given applicable in every case.

Certain parts of the genital organs present chancres more frequently than others.—In the male, the angle between the corona glandis and prepuce, the region of the frenum, and the inner surface of the prepuce, are the most frequent seats of sores, probably owing to the contagious matter being allowed to lodge between the glans and prepuce. The orifice of the

according to their *seat*. Among other examples, the following may be mentioned:—On the frenum, and in the fossa between it and the corona glandis, the ulceration has a tendency to eat through or even destroy the frenum. From exuberant infiltration of their base with exuded matter, chancres sometimes become elevated above the level of the adjacent surface. This happens most frequently on the inner surface of the prepuce. Sores on the prepuce, owing to the loose cellular structure of the part, are most commonly indurated; whereas, owing to the denser structure of the glans, induration of the sores on it is less frequent. This is well exemplified when a sore occupies a portion of the inner surface of the prepuce and the glans penis at the same time. The preputial portion of the sore will be found hard and cartilaginous, whilst the portion occupying the glans is without induration.

Disordered states of the constitution induce various *modifications in the form* and *course* of primary sores. In a sthenic condition of the system, the chancre may be accompanied by acute inflammation, leading to lymphy exudation on the surface and infiltration of the tissues around, with an extension of the ulceration or the formation of a slough. In an asthenic, nervous, irritable state of the system, the chancre is often extremely painful—impatient of the slightest touch, of caustic and all irritating applications; and even when kept quiet, it makes no progress towards healing until the irritability be alleviated. In an

anemic state of the system, the borders of the ulcer are flabby and its surface covered with an aplastic exudation, while the tendency to heal is slight. It is generally in ill-fed cachectic individuals and in drunkards, that chancres present the phagedenic character with diphtheric, tallowy-like exudation, loose flabby borders and often a tendency to bleed. Similar degenerations in the condition of the ulcer to a still higher degree very frequently supervene on the improper use of mercury. In scrofulous subjects, the ulcers shew not only little tendency to heal, but also a great disposition to spread on one or all sides. If in a person otherwise in ordinary health, an attack of cold with gastric disturbance supervene, the borders of the chancre frequently assume an erysipeletous character, and the exudation from its surface undergoes a change. The ulcer may even become sloughy.

Local irritation may induce an inflammatory condition of the chancre, characterised by increased redness and swelling around—erysipeletous redness and swelling, perhaps,—with spreading of the ulceration, and a diphtheric exudation or a discharge of bloody matter on its surface.

Phagedenic chancres.—From accidental circumstances or from the individual disposition of the patient, but not from any specific cause, chancres —especially simple chancres—sometimes, though rarely, assume a *phagedenic* disposition, characterised by ulcerative destruction of the tissue either super-

ficially or in depth, or even sloughing. The ulcer, which may follow a pustule or abrasion in the ordinary way and is without surrounding induration, gradually creeps from one part to another, destroying the skin as it goes. Cicatrization may take place on one side, while the ulcer makes progress on the other. Sometimes, the ulceration stops for a while but only to recur. Such an ulcer may extend from the genital organs to the inguinal regions, and thence to the abdomen and sides, on the one hand; and to the thigh, on the other. Sometimes, instead of destruction of parts by mere ulceration, sloughing takes place, and after separation of the slough, instead of granulation supervening, ulceration may continue.

Buboes occurring in such a case, exhibit the same malignant and intractable character as the primary sore.

CHAPTER II.

CONSTITUTIONAL SYMPTOMS OF SYPHILIS.

We have seen that it is the true syphilitic or indurated chancre only which is followed by constitutional infection. It is it alone, therefore, as remarked by a distinguished French writer on the subject*, which is entitled to the name of *primary* symptom of syphilis, in contradistinction to the *secondary*, *transition* and *tertiary* groups into which the symptoms of constitutional infection are divided.

When there are more than one primary sore, the number of constitutional symptoms originating therefrom is not necessarily greater than when there is only one. The character of the sore again, whatever it may be, appears to have no influence in determining any peculiar form of constitutional infection;—*i.e.* no particular form of eruption or other constitutional symptom can be traced to arise from a particular form of sore. It is, therefore, in fact, impossible to anticipate from the appearance of the sore the character of the secondary symptoms that may arise;—the simplest

* M. Diday.

or most trivial looking sore may be followed by very severe general infection,—whilst, on the other hand, the worst form of sore may be followed by very mild infection, or, perhaps, none at all.

Constitutional symptoms sometimes occur unpreceded by any apparent primary sore. In such cases, however, we must not admit, without great reserve, that a primary sore really did not exist. Even when there is no disposition on the part of the patient to deny the possibility of infection, the existence of a primary sore may escape his observation, from its being but a slight abrasion or very small ulcer, causing no inconvenience and healing rapidly within a few days, or from its being seated within the urethra in the male or within the vagina in the female. It might, however, be asked in such cases, cannot the constitution be infected by direct absorption of the poison, without the previous formation of any pustule or sore at the place where the virus was applied? The affirmative of this question is maintained by some. Without answering it in the negative, I must conclude that, in the majority of cases, some slight excoriation or primary sore has existed; and might have been discovered, had a sufficiently careful examination of the parts been made. In elucidation of such cases, it is also to be observed, that primary ulcers on the lips may be contracted by contact with ulcers on the lips of another person,

and from the primary ulcers thus contracted, secondary symptoms may arise without the real nature of the case being at first suspected.

Whether the disease may be contracted from secondary sores on the lips of another person is a question which will be inquired into hereafter.

Whilst there is little chance of escape from the outbreak of chancre if inoculation has taken place, some persons seem to enjoy an immunity from constitutional infection. This apparent immunity will be found to depend in some cases, not on the idiosyncrasy of the persons, but on the simple nature of the chancres they have become affected with. Still, constitutional symptoms do not, we have seen, invariably follow true syphilitic chancre. For this, sometimes, as we have said, heals, and there is an end of the case.

After one attack of the disease, further liability to constitutional infection is, moreover, for the most part, extinguished.

Constitutional symptoms, it was stated in the preceding chapter, make their appearance on an average in forty-six days after the outbreak of the primary sores. In some persons, the virus takes a longer time to produce its deleterious effects on the system. And when, at last, secondary symptoms do appear, it is, perhaps, only under the operation of some accidental cause, such as cold. In other persons, again, constitutional symptoms frequently shew themselves even before the chancre has

healed. After chancre not treated by specifics, M. Diday*, of Lyons, remarks that three months seldom elapse, never six months, without the occurrence of constitutional symptoms, if such are to appear. Hence, in a case of the first outbreak of secondary symptoms, it will be found, on inquiry, that the patient had a chancre within the preceding six, if not three months.

It is proper to keep in mind that the patient's statements as to the non-occurrence of certain secondary symptoms are not always to be relied on. Thus, roseolar eruption, if unaccompanied by itching, is apt to escape his notice. I have known even mucous tubercles or condylomatous soft sores between the nates, of some standing, overlooked.

Constitutional symptoms may disappear at any time in the course of the disease, without a cure having in reality taken place. On the contrary, they may, as above mentioned, break out again at some subsequent, and that, perhaps, a very remote period, with or without new cause—at any rate without new syphilitic infection.

The organs which are most liable to become the seat of constitutional syphilitic affections are: the skin; the integument in transition from skin to mucous membrane;—the mucous membranes of the throat, the mouth, the nose, the larynx, the genital

* Exposition Critique et Pratique des Nouvelles Doctrines sur la Syphilis.—*Paris*, 1858.

organs, and the anus;—the iris and other parts of the eye;—the ear;—the testicles;—the periosteum and bones;—the fibrous textures about the joints;—the viscera;—in short any or all structures and organs may suffer.

The more superficial lesions of the skin and mucous membranes belong to the group of *secondary* symptoms, whilst the more deeply seated lesions of the same parts and the lesions of the fibrous tissues and bones belong to the group of *tertiary* symptoms. The *transition* symptoms comprise iritis, sarcocele and ecthymatous eruption. Such a regularity in the succession of symptoms, however, is not invariable.

Constitutional syphilis, we have above seen, shews itself in about forty-six days after the outbreak of the chancre. Headache, lassitude, wandering rheumatic pains through the body and enlargement of the posterior lymphatic glands of the neck with isolated crusts on the scalp, usher in an eruption, ordinarily roseolar, more rarely papular. By and by, mucous tubercles merging into ulcers affect the lips, throat, genitals and anus. Coincident with this first outbreak of secondary symptoms, there may be a general anemic condition of the body.

SYPHILITIC AFFECTIONS OF THE SKIN.

Copper-coloured blotches of the skin, with desquamation of the cuticle, are the commonest and most characteristic syphilitic affection of that organ. They occur in the form of the true syphilitic

eruption, scaly from the commencement, and in the form of roseolæ, papulæ, pustules, tubercles, rhupia, &c. in their desquamating stage. The copper-coloured stains sometimes remain a long time or may even be indelible. I have met with one instance in which they were of a very dark colour all over the body—almost black. They remained a long time, but ultimately disappeared.

Roseola is one of the earliest symptoms of constitutional syphilis, generally appearing before the chancre has healed. It gives a mottled appearance —sometimes very faint—to the skin. I generally look for it on the abdomen and the thin delicate skin on the inside of the arms, but it may cover the whole body. The eruption, which is commonly accompanied by fever and sore throat, disappears in two or three weeks or passes into other forms of syphilitic skin disease—such as the pustular, squamous, or tubercular.

The scaly syphilitic eruption, occurring in patches from the size of a sixpence to that of half a crown, is scaly from the very commencement; in which respect it differs from every other venereal eruption. It is a form of psoriasis and has a special tendency to affect the genital organs and lower extremities, as also the hairy scalp. Sometimes, it is more developed on the face than elsewhere. It is generally preceded by a roseolar efflorescence giving to the skin a mottled appearance or by papulæ or vesicles. Sore throat and affections of the periosteum

and bones are common accompaniments of this eruption.

Syphilitic lichen or *papular eruption* is a frequent and early form of secondary symptoms. Papulæ are flat elevations, of the size of a barleycorn or lentil, surrounded by an inflamed areola and often painful, arising from a small quantity of exudation in the substance of the cutis or on its surface, without the epidermis being, at first, raised into a vesicle. Pimples running into ulceration which become covered with scabs may subsequently rise. In the advanced stage, when desquamation has begun, copper-coloured blotches appear, which are not to be confounded with the true syphilitic scaly eruption or syphilitic psoriasis. Fever precedes the eruption, but abates after its appearance. Papulæ are commonly associated with pustules, tubercles, or squamæ and ulcers of the mouth and throat. Great itching accompanies a papular eruption, hence it is named *syphilitic itch.*

Pustular eruption.—Secondary syphilitic pustules appear under very various forms,—like acne, impetigo, or variola. When like ecthyma, it is a transition symptom. The pustules bursting, leave superficial ulcers or scaly blotches of a coppery redness. A pustular eruption is not so frequent as the papular. Like the latter, it is preceded by fever, and is usually accompanied by sore throat and mouth. A pustular sometimes occurs along with a papular eruption, and frequently with tuber-

cles. Syphilitic pustules are especially frequent on the face. In a week or two the crusts fall off, and leave superficial cicatrices.

Syphilitic tubercles consist in infiltration of the cutis, and are of very frequent occurrence. They present themselves sometimes in the form of acne tubercles and mentagra, sometimes as lupus-like formations on the lip and nose, sometimes dispersed singly or in groups on the chest, abdomen, neck, inside of the arms, &c. There is a pustular eruption mixed with tubercles terminating in deep spreading ulcers, and forming thick, prominent crusts, like rhupia, which is the most unmanageable and destructive form. It is generally confined to the upper parts of the body.

Ecthymatous eruption.—This belongs to the transition group of symptoms, and is of a chronic character when compared with the common pustular eruption. The pustules, which occur generally on the limbs, especially the lower, are large, but few in number, and appear in succession—not all at the same time. They commence in a livid blotch, on which a pustule containing a bloody matter rises. On the drying up of the pustules, black crusts succeed, which, being detached, leave an excavated ulcer. Along with, or shortly after, the outbreak of ecthymatous pustules, affections of the bones, ligaments, &c. occur.

Syphilitic Rhupia belongs to the group of tertiary symptoms. It occurs in cachectic individuals, com-

mencing with an eruption of small, flat, flaccid vesicles—mostly scattered, not aggregated. The vesicle dries into a pretty thick crust, which, if removed, is quickly reproduced. This is named *rhupia simplex*. The name *rhupia proeminens* is given to the affection when the vesicles are large and pass into very thick, prominent, conical crusts of a green, brown, or blackish colour. Under the crusts of rhupia the skin is ulcerated—sometimes it becomes sloughy, in which case we have *rhupia escharotica*.

Alopecia, or *falling out of the hair*. Partial loss of hair occurs among the secondary symptoms; and a more complete loss in the later stages of the constitutional disease. A general falling out of the hair is less frequent than a partial falling out.

Onychia, or *disease of the matrix of the nails*. In syphilitic eruptions, the matrix of the nails becomes diseased, the result is, that the nails degenerate in structure and are thrown off.

Secondary ulcers. Many of the preceding syphilitic affections of the skin run into ulceration. Secondary ulcers are not attended by so much pain and inflammation as the primary and are slower in their progress. They are of a somewhat circular form and have a foul tawny aspect. I have known the skin around the mouth, the skin of the upper and lower lip and the lower eyelid entirely eaten away by *eczema exedens*. Ulcers of the alæ nasi sometimes

begin in the angle between the nose and cheek from a cluster of tubercles.

Chronic syphilitic ulcer and malignant ulcer may be mistaken for each other. A malignant sore of the glans penis, the prepuce or lower lip, unless great circumspection be observed in the diagnosis, may be mistaken for chancre, and *vice versâ*. In one or two instances, I have been particularly struck with the resemblance of chronic chancre to a carcinomatous or malignant ulcer at the commencement. They both presented the same slow progress, the welted thickened edge, surrounding hardness, excavated bottom, &c. Many years ago, I saw a woman with a broad, thickened, indurated ulcer of the lower lip, which had existed a long time, and had, in fact, been put down as carcinoma. The case was seen by the late Mr. Thomas Rose, at that time one of the surgeons to St. George's Hospital, who, doubting its malignant character, suggested that it might be of syphilitic nature. The patient, being much depressed and out of health from privation and other causes, was put on a generous diet. Sarsaparilla and blue pill, with a small addition of opium, were prescribed, and soothing applications made to the sore. At the end of six weeks the sore was quite healed.

Syphilitic ulceration of the eyelids is sometimes primary, more commonly secondary. It may affect the inner corner, the edges of the eyelids, or its outer or inner surface. There is considerable œdema

of the eyelids, and the conjunctiva is much injected.

Condylomata, mucous tubercles or soft sores.—Condylomata are white, soft, moist elevations, discharging a whitish, stinking matter, which present themselves on parts of the skin, kept moist by being in apposition, as for example, between the nates, between the thighs and the scrotum or labia, between the toes — and at the natural apertures of the body where the transition from skin to mucous membrane takes place. They consist of thickening of the cutis from exudation into its interstices, and enlargement of its vascular papillæ, with the epidermis in a spongy, softened, and whitish state, like what it appears after the action of a poultice. Condylomata are among the earliest, most frequent, and obstinate, as regards their recurrence, of secondary symptoms. A true chancre may be transformed into a condyloma. I have met with flat mucous tubercles in the vagina and rectum as far up as four or five inches.

SYPHILITIC AFFECTIONS OF THE THROAT, MOUTH, NOSE, LARYNX, &c.

Syphilitic Sore Throat.—As in the case of other cutaneous eruptions, so in the case of syphilitic eruptions with fever, there is a greater or less tendency to sore throat. The mucous membrane of the fauces and tonsils may be at first merely red and swollen—perhaps abraded, but not ulcerated.

The lymphatic glands at the angle of the jaw may be at the same time swollen and painful. When there is ulceration, the ulcer of the tonsils and neighbourhood is sometimes deeply excavated with a sharp edge, and covered with a thick, sloughy-like matter. Ulcers of the throat are sometimes of phagedenic character, quickly destroying the velum, uvula, and tonsils, and spreading to the nostrils, pharynx, and sometimes the larynx. Sore throat may commence in mucous tubercles.

The inflammation and ulcers of the throat, mouth, and tongue arising from the action of mercury and sometimes also of iodide of potassium are not to be confounded with secondary syphilitic affections of the same parts. In many cases, however, ulcers appear to be owing partly to mercurial action, partly to the syphilitic diathesis.

The inside of the lips and cheeks, the tongue, the palate, the fauces, &c. are liable to be affected with secondary syphilitic ulceration. The ulcers are at first superficial—rarely extending beyond the mucous membrane—and are tedious, troublesome and painful. Besides superficial ulcers, mucous tubercles or condylomatous soft sores occur in the form of thickened, white, spongy-looking patches of the epithelium, secreting thick mucus, on the palate and back of the pharynx. The tongue may also present fissured and indurated sores, and is sometimes the seat of vegetations.

Tertiary syphilitic affections of the mouth consist in

deep ulcers, destroying the mucous membrane and subjacent structures. The arch of the palate may be the seat of gummatous swellings, which, beginning small, gradually become broader and have a soft consistence. They occasion severe pain and not unfrequently lead to destruction of the bone by caries or necrosis. Condylomatous ulcers may also lead to disease of the bones of the palate.

The earlier form of syphilitic affections of the nose is chronic inflammation and superficial ulceration of the Schneiderian membrane, with a muco-purulent discharge—sometimes bloody—and the occasional expulsion of crusts of inspissated mucus and matter. The ulceration extending beyond the mucous membrane, the disease proves very rapid and destructive in its progress. The spongy bones and septum, by being laid bare, become necrosed, and along with this there is a foul discharge mixed with pieces of dead bone—(*ozæna syphilitica*). Eventually, from the destruction of the septum, the nose sinks. In consequence of the damage to the palate and nose, the voice is rendered snivelling and indistinct. The lacrymal sac and nasal duct are not unfrequently implicated in the disease in these cases.

The syphilitic affections of the larynx consist of ulcers, generally spreading from the throat. The ulceration may affect the whole thickness of the mucous membrane of the larynx, and lead to necrosis of the cartilages. The symptoms are those of *phthisis laryngea*. The mucous membrane

of the larynx may be also the seat of vegetations and condylomata. *Syphilitic ulcerations* sometimes occur in the *trachea* or *bronchi*, which cicatrizing, cause stricture of the passage, ending in death.

SYPHILITIC AFFECTIONS OF THE EYE.

Internal inflammation of the eye is a not uncommon manifestation of constitutional syphilis. It usually occurs along with the later secondary symptoms, or follows hard upon them as a transition symptom. The iris is the visible focus of the inflammation, which is characterised by a tendency to copious exudation of lymph, not only into the pupil, but also into the substance of the iris,—(giving rise to thickening and swelling of it, especially its pupillary margin,)—as well as in flakes on the anterior surface of the iris, or diffused in the aqueous humour (causing muddiness of the latter.) Small abscesses sometimes make their appearance at the surface of the iris. In consequence of the intense vascular injection, or even of blood extravasated and mixed with the exuded lymph, the pupillary margin of the iris often presents a tawny colour, which has been set down as characteristic of syphilitic iritis. It is an objective symptom of any intense parenchymatous iritis, and as syphilitic iritis is usually of that character, a tawny colour of the pupillary margin of the iris is an appearance of frequent occurrence in the disease. The membrane of the aqueous humour on the one

hand, and the uvea on the other, are more or less implicated. The inflammation has a tendency also to extend to the posterior tunics—the choroid and retina. Sometimes the posterior tunics are the focus of the inflammation, and the iris is only secondarily implicated.

In regard to the external vascular injection of the eye, there is the usual circumcorneal sclerotic pink zone. The conjunctival redness is sometimes not very great—sometimes, on the other hand, so intense as almost to conceal the subjacent sclerotic injection.

When the inflammation has its focus in the posterior segment of the eyeball, it is usually of a chronic character, and not manifested by much external redness.

Circumorbital or temporal pain is sometimes very severe. Sometimes there is little or no pain even when the external symptoms of inflammation are strongly marked. Sometimes there is considerable constitutional disturbance, sometimes none at all.

The opposite eye may become affected after the subsidence of the inflammation in the other.

The sight is impaired in proportion at least to the obstruction of the pupil with lymph, but when the posterior tunics are implicated, there is also amaurotic dimness of sight.

In exanthematous diseases, iritis is very liable to occur, so in a somewhat similar manner syphilitic iritis appears in connection with syphilitic eruptions

and sore throat. The occasional exciting causes are such as might, under any circumstances, induce an inflammation of the eye.

SYPHILITIC AFFECTIONS OF THE EAR.

Dulness of hearing is a pretty frequent transition or tertiary symptom, owing in some cases, no doubt, to extension of disease from the throat along the Eustachian tube to the cavity of the tympanum, and, in other cases, to disease within the labyrinth, analogous to the internal inflammation of the eye, and, like it, sometimes accompanied by violent pain. The most common form of syphilitic deafness, however, depends on inflammation of the membrana tympani, and lining membrane of the cavity, with thickening. Such a form was met with in a scrofulous young man of twenty-two, in an advanced stage of syphilis, who was at the same time affected with corneitis, and almost quite bald from alopecia. Under treatment the cornea slowly cleared, and the hair grew again, but the deafness became more confirmed. In this case, the occurrence of the corneitis and inflammation of the membrana tympani was no more than what is common enough in scrofulous persons; but the syphilitic diathesis seemed to have elicited the outbreak, and modified the character of the disease.

SYPHILITIC SARCOCELE.

In persons affected with constitutional syphilis,

chronic enlargement of the testicle is sometimes met with, commencing as a transition symptom. After months' or years' continuance of the enlargement, atrophy may ensue, the testicle degenerating into a fibrous, cartilaginous, or osseous substance. Usually there is no pain, but what arises from the weight of the enlarged organ. The disease consists in chronic inflammation, with plastic deposit in the interstices between the seminiferous tubes, and irregular thickening of the tunica albuginea. Slight hydrocele may accompany the enlargement of the testicle, which is itself usually not more than double the natural size. Both testicles may be affected at once, or one after the other.

This indolent enlargement of the testicle is not to be confounded with hernia humoralis or the acute inflammatory swelling of the testicle met with in gonorrhœa. Syphilitic enlargement affects the body of the testicle, and originates in the constitutional infection. Gonorrhœal inflammation and swelling, on the contrary, affect the epididymis, and do not proceed from any infecting principle, but are merely sympathetic of the urethral inflammation. Gonorrhœal swelling of the testicle, which seldom appears before the fifteenth day of the urethral affection, is more common than syphilitic sarcocele.

Syphilitic sarcocele, again, must not be mistaken for encepheloid. Under the impression that the disease was encepheloid, many testicles have been unnecessarily extirpated.

Syphilitic testicle also requires to be distinguished from scrofulous enlargement.

Instead of atrophy and induration supervening, the enlargement may increase and suppuration of the testicle take place, attended by severe pain. After the bursting of the abscess, a fungous excrescence, interspersed with broken-up seminiferous tubules, protrudes through the ulcerated opening in the tunica albuginea which is, at the place, adherent to the thickened and hard skin of the scrotum around. Such cases of suppuration of syphilitic testicle are to be distinguished from suppuration of syphilitic gummatous swelling of the scrotum.

SYPHILITIC GUMMATA.

Gummatous infiltration of the cellular tissue under the skin or under a mucous membrane, or between the fasciculi of muscles or in the interstices of other organs belongs to the group of tertiary symptoms. In the subcutaneous cellular tissue, gummatous infiltration forms at first a small hard moveable knot. This gradually increases in size and at last fluctuates, the skin having become livid or copper-coloured. The contents of the tumour are a glairy dirty-looking matter. Left to itself, the tumour may suppurate, burst and leave a foul ulceration in which adjacent bones are liable to be implicated. Muscles, in which the deposition has taken place, become retracted and hard. The sacrum, the extremities, the scrotum, the throat and the flexor muscles of

the right arm are the situations where gummatous infiltration most frequently occurs.

SYPHILITIC AFFECTIONS OF THE PERIOSTEUM AND BONES.

These affections belong to the group of tertiary symptoms. Patients who have been treated without mercury as well as those who have taken the medicine largely, are found to suffer from them, though, perhaps, the latter more frequently than the former.

Syphilitic inflammation of the periosteum gives rise to thickening of its substance and deposit on the bone underneath. The swelling over the bone from thickening of the periosteum or deposit underneath it, constitutes a *node*. Nodes are most common on superficial bones, viz. the tibia, clavicle, ulna, cranial and orbital bones,—at least they are most readily observed on such bones. When pain accompanies nodes, it is most felt at night. The inflammation subsiding, the matter exuded into the substance of the periosteum or on the bone beneath may be absorbed so that the prominence disappears. Sometimes an irregular depression is left at the place. When the node runs on to suppuration, a carious ulcer of the superjacent skin results. When the exuded matter becomes ossified, the prominence continues—constituting one form of exostosis or bony tumour.

Syphilitic osteitis is sometimes accompanied by pain—sometimes not. Its external indication is the

eventual increase in size—partial or general—of the bone, or, when the inflammation is suppurative, the caries which results. The ossifying deposit which gives rise to the enlargement of the bone may have its seat at the surface or in the interstices of the osseous tissue. It is a fatty fibrinous matter of a gelatiniform or solid consistence. With caries, callous-edged ulcers of the skin take place, which, when the parts heal, leave a hard and puckered cicatrice. The most common seat of syphilitic caries is in the bones of the skull, orbit, palate and nose, the sternum, tibia, ulna, &c. Necrosis likewise occurs. In these cases, the periosteum is affected either primarily or secondarily.

Changes, analogous to those just described, are met with, affecting cartilage and its perichondrium.

Tendons and ligaments are also liable to become affected with chronic syphilitic degeneration.

Pains in the bones, with or without apparent organic lesion.—We have seen that rheumatic pains in the bones are among the symptoms which usher in constitutional syphilis. Pains in the bones also occur in the later stages, among the tertiary symptoms. They come on in paroxysms, of greater or less severity, by night, often intermit, but only to return again. Generally the bones nearest the surface are the seat of the pains. When suppuration takes place in the interior of bones, the excessive pain experienced, sometimes coming on in paroxysms, is owing to the unyielding nature of the structures.

SYPHILITIC AFFECTIONS OF THE VISCERA.

The heart, vessels, bronchi, lungs, liver, spleen, and kidneys are all liable to suffer from the effects of constitutional syphilis in its tertiary stage. In fact, any or all organs and structures may be implicated. The central organ of the nervous system is sometimes pressed on by exostoses and caries, or apoplectic extravasations; sometimes syphilitic tubercles occur in it. But even without any appreciable anatomical change, there occur irritable weakness of the senses and mental faculties, neuralgiæ, cramps, muscular tremblings and paralysis. Palsy of the muscles of the eye appears to be not unfrequently syphilitic.

Lastly, *syphilitic cachexia*, or a breaking up of the whole constitution, takes place with irritable weakness of all the organs and functions, and impaired nutrition, manifested by falling out of the hair and teeth, atrophy, tuberculosis, &c.

CHAPTER III.

SYPHILIS IN INFANTS.

In cases of syphilis affecting infants, it is important to determine whether the disease has been contracted at birth by contact with primary sores on the mother's genital parts,—or whether it is hereditary,—or whether infection has been received after birth from a hired wet nurse.

Inoculation of the infant during parturition from chancre on the mother's parts is rare, but not impossible.

In the hereditary transmission of syphilis, the disease may descend either from the father or the mother, and that even after he or she may appear to be cured. In the descent from the father, the virus must be contained in the seminal fluid, so that the ovum at the same time that it is fecundated is infected with the disease. In this case, the previously healthy mother may be infected from the fœtus with which she has become pregnant,—not directly from the father, for he may be free from any primary sore and, to all appearance, as above observed, cured of the disease. Seminal fluid tainted with the syphilitic virus, bespeaks, of course,

the existence of the virus in the blood from which the seminal fluid is secreted. In the descent from a tainted mother, the virus must be in her blood also, and may have been communicated to the ovum before impregnation, as well as to the fœtus, when formed, through the medium of the nutritive interchange that takes place between the blood of the mother and that of the fœtus in the placenta. The latter mode of communication alone is that which occurs from disease contracted by the mother after conception.

In illustration of the hereditary transmission of the syphilitic poison, let us suppose a case of superfœtation, such as that which has been often quoted, in which a white woman having been violated by a black slave one morning, shortly after her white husband had left the bed, gave birth, in due time, to twins—the one infant being white, and the other coloured; and let us suppose that both the woman and her husband were of pure and healthy blood, but the negro slave of syphilitic taint, If, now, in the course of her pregnancy, the woman manifested symptoms of constitutional syphilis and if both infants were born diseased, the question arises, how was the infection propagated? The ovum impregnated by the black man had at the same time received the poison, so that the resulting fœtus became diseased. This fœtus communicated the infection to its mother, and she, on the other hand,

communicated it to the twin fœtus she had healthily conceived by her own husband.

If, of a married couple, the father alone be the infecting agent, the action of the virus may, in time, diminish, especially if the man be properly treated, so that the subsequent children shall not suffer so much as the first, or escape altogether. When, however, the first child communicates the disease to the before healthy mother, a double influence—that of both father and mother—comes into play in subsequent pregnancies. The younger children may thus suffer most, being formed wholly out of syphilized materials—semen, ovum, and blood.

In such cases of hereditary descent, the disease, of course, affects the infant constitutionally. Sometimes, when abortion, which is of frequent occurrence, does not take place, the infant is born in a state of marasmus,—it is weakly, its skin is ill-coloured, it has a peculiar withered and aged look, its hair is thin and nails undeveloped. Such an infant is very likely to die. At birth, however, the infant is commonly healthy-looking, and it is generally not until some weeks that the disease manifests itself by cutaneous eruptions, &c.

Among the earliest manifestations of congenital syphilis in a previously healthy-looking infant, are a *roseolar eruption* on the belly, breast, neck, and inside of the limbs, and mucous tubercles about the face, mouth, anus and genital organs, followed by ulcers.

Papular and *squamous* eruptions do not occur in the new-born infant with the same marked characters which distinguish them in the adult; but a *pustular* is one of the most common eruptions in infants, occurring at all periods of the disease. It presents itself in the forms of *acne*, *impetigo*, and *ecthyma*. *Syphilitic acne* appears early on the back, hips, shoulders and breast, in the form of hard, indolent, and isolated papulæ, with a suppurating point. The thick yellow crusts, with ulcers beneath and chaps and fissures between, on the face and elsewhere, result from the bursting of the confluent pustules of *syphilitic impetigo*, and the drying up of the matter. *Ecthymatous* pustules are a late appearance, and an unfavourable symptom. They are seated chiefly on the legs and hips, contain matter mixed with blood, and run into ulcers covered with thick dark crusts.

Pemphigus is not so much a symptom of syphilis as a manifestation of the cachexia induced by syphilis in infants. Death usually soon follows the outbreak of the bullæ. These are at first the size of a hemp-seed or lentil, and contain a lactescent serosity. Enlarging, the matter becomes yellow, and when the bullæ burst, crusts are formed of the epidermis and matter dried together. The bullæ may be spread all over the body, but they are, in general, limited to certain parts, such as the arms and legs, and hands and feet.

In *syphilitic coryza*, the discharge from the nos-

trils is at first serous and afterwards puriform. By inspissation of the puriform mucus, the nasal passages become blocked up, so that the infant snuffles and cannot suck. To the discharge from the nose, which is fetid, are added pustules, chaps, and ulcerations on the alæ nasi, and upper lip. Ulcers of the throat are also met with; and it is conjectured by M. Diday that the accompanying hoarseness of voice is owing to their extension to the larynx. By ulceration of the Schneiderian membrane, the bones are laid bare, and become affected with caries and necrosis, so that dead pieces come away with the crusts and fetid bloody discharge which ensues. The nose eventually sinks.

Besides implication of the eyelids in the impetiginous crusts of the face, there may be inflammation of the conjunctiva with puro-mucous discharge, leading to destruction of the cornea by ulceration —sometimes iritis.

The auditory passages may be also the seat of puriform discharge.

Syphilitic ulceration and suppuration of the matrix of the nails and the consequent necrosis and falling off of the latter occur.

Syphilitic disease of the bones is very rare in infants, perhaps because being a late symptom, the little patients die before it can supervene.

Suppurating bubo rarely, if ever, occurs in congenital syphilis, whether in the infecting nursling or in the infected nurse. In the latter, when the breast

is affected, lymphatic engorgement in the axilla is common enough but it does not go on to suppuration.

The following is an interesting case of congenital syphilitic disease of the testicles communicated to me by my friend Mr. Athol Johnson :—

*William P*****, aged five months.* Both testicles are universally hard, knotty, and enlarged to about the size of walnuts; the left being the larger of the two. There is no adhesion to the scrotum, and they do not appear to be tender.

On the scrotum and perineum as well as round the anus, there is a copious eruption of psoriasis. On the face, especially the forehead and about the hairy scalp, there is a copper-coloured eruption with desquamation of the cuticle. No vesicles or pustules.

The child is much emaciated. Cries a great deal. Respiration apparently obstructed about the nares.

History.—At birth some enlargement of both testicles was noticed: this has been increasing ever since.

At the same time or soon afterwards, the eruption was noticed round the anus and on the scrotum. The face became affected subsequently.

The mother is at present in very bad health, having been attacked three months since with scarlatina, followed by rheumatism, and afterwards a bad cough. Till three months ago she says she was very well, and denies having suffered from

syphilis; she allows that her husband may have had it, and suspected what the child was suffering from.

Her eldest child is nine years old, and in good health. Since he was born, however, she has had five or six miscarriages, one child born dead and another which only survived six weeks. One child, a girl, has lived and is now four years old. On examining her, I found a copious eruption of lichen of coppery colour.

Ordered,

Mercurial ointment to be applied to the thigh on a strip of flannel,—and
Ol. Morrhuæ to be given internally.

But the child is so reduced and the mother so incapable of taking proper care of it that there is little chance of his surviving.

Syphilitic lesions of the viscera in infants occur early, along with some one or other of the affections above described. The lungs become the seat of indurations, which soften and suppurate, and are attended by the symptoms of lobular pneumonia. Along with this affection of the lungs, there may be suppuration of the thymus gland and disease of the liver, consisting in enlargement and induration from fibro-plastic deposit in the intestices of the lobules, causing hypertrophy of the mass, but atrophy of the proper tissue.

The infant cachectic from syphilis, may be at once known by its anemic or withered senile aspect, its pursed mouth, and its peculiar hoarse and querulous cry.

Cases of the outbreak of congenital syphilis, apparently for the first time months or even years after birth, have been recorded. It has, however, been suggested that these were merely cases of relapse, the original outbreak having been overlooked in consequence of its mildness. It is to be observed also, that the disease occurring in childhood may not be congenital, but may have been contracted accidentally, *e.g.* from a nurse. In the course of childhood, scabby eruptions, lupus, and eating ulcers may present themselves, though in this case the proof of hereditary origin is not always complete.

In a case of this kind—the patient, a little girl—the tarsal edge of the right upper eyelid is eaten away, except about a quarter of an inch towards either cauthus.

Hereditary congenital syphilis differs from the disease contracted by inoculation from a primary sore in the ordinary way, inasmuch as it is very contagious, though presenting itself under the ordinary characters of secondary symptoms as they occur in adults, which are not usually contagious. Ulcerated mucous tubercles, which are among the earliest manifestations of syphilis in infants, is the most common agent of transmission to the nurse or others. Hereditary syphilis is also peculiar in this

respect, that a nurse who has contracted the disease from an infected infant in the form of a sore on her breast, for example, will, in her turn, infect any healthy infant who may be afterwards suckled by her, or, indeed, any other person with whom she may happen to come into close contact. The use in common of a glass or spoon is sufficient to propagate the malady—also a kiss. In this manner, the disease may be introduced by a nursling into a family and neighbourhood, and spread like an epidemic from nursling to nurse, and from the latter to her own children and husband, and from them to parents, relations, and neighbours of every age and sex. One of the earliest cases of syphilis in an infant that I recollect was at St. George's Hospital, under the treatment of Sir B., then Mr. Brodie, some thirty-five years ago. This infant had sores about the mouth, lips, and cheeks—interspersed with soft, white, mucous tubercles, covered with a thick, creamy matter. Mr. Brodie's emphatic observation, when he saw the case, is still fresh in my memory:—"Take care not to touch the matter, "for it is highly infectious, and will produce sores "of a similar character."

A secondary sore on a nurse's breast of the ordinary kind—that is, which has supervened on an indurated chancre—would not so readily infect a healthy infant. A primary sore on the nurse's breast would do so, but then the resulting disease in the infant would be of the ordinary character—

viz. chancre followed by constitutional symptoms, slow in their progress and not dangerous.

An hereditarily syphilitic infant may not transmit disease to the nurse, provided there are no sores in the infant's mouth,—provided the nurse is proof against a new infection from having already had constitutional syphilis, — or provided the nurse is, at the same time, the mother of the infant, as was first shewn by Mr. Colles. If, however, a healthy infant has contracted disease from a hired wet-nurse, it will, if applied to its own mother's breast, infect her.

It is to be kept in mind that an infant may have a primary sore in the mouth, from which the nurse may contract a similar sore on her breast, and thus be in a condition to communicate a chancre to any healthy infant to which she may afterwards give suck. Or a nurse may have a primary sore, contracted from her husband or her lover, and from this infect a healthy nursling. But in these cases of syphilis originating in infecting chancre, the symptoms are, as above remarked, of the ordinary kind, whereas in hereditary congenital syphilis, the lesions—as also above remarked—though presenting the form and evolution of secondary symptoms, are contagious, like the primary sores of the common syphilis of adults.

Whilst ordinary syphilis is slow in its progress—taking up several months in its different stages and more than a year in its whole course—congenital

syphilis is rapid. Again, whilst ordinary syphilis in an infant—that originating in a primary sore—is not so dangerous, congenital syphilis is very destructive—the death of the infant being a common, its cure, a rare event.

Congenital syphilis thus appears to be, as M. Diday maintains, a distinct species, or, at least, a variety, having a rapidity of evolution, a contagiosity and a mortality quite different from those of ordinary constitutional syphilis*.

* Traité de la Syphilis des Nouveau-nés et des Enfants à la Mamelle. *Paris*, 1854. An English translation of this valuable work has been lately published by the New Sydenham Society.

CHAPTER IV.

INOCULATION AS A MEANS OF DIAGNOSIS BETWEEN CHANCRES—TRUE AND FALSE.

In consequence of the operation of various causes —both local and constitutional—venereal sores assume such a variety of characters, that it is no easy matter always to distinguish the one kind of chancre from the other, by their mere outward appearance. For example, I have over and over again seen patients remain exempt from secondary symptoms who had sores possessing all the reputed characters of the true syphilitic chancre;—whilst, on the other hand, I have known a very simple looking sore of little more than a week's standing followed by constitutional infection. And yet it would be of much importance practically, to establish a correct diagnosis between the two kinds of sores, seeing that the simple chancre may be radically cured by local treatment, such as cauterization; whilst, in the management of true syphilitic chancre, it may be necessary, in addition to the local treatment, to administer mercury in order to counteract the operation of the specific poison. Furthermore,

patients are frequently anxious to know whether, after the sore has healed, they are safe from the supervention of secondary symptoms.

In my opinion we are far from such a precision of diagnosis between true and false chancre, as would authorise us to adopt a distinctive treatment in the two cases, especially at the commencement, or to satisfy our patient's solicitude in the matter one way or the other. In all cases, our duty plainly is, whilst endeavouring to heal the sores by local treatment, to recommend the patient so to conduct himself as if he were not quite free from the danger of constitutional infection; for he really is not, if the chancre was a true syphilitic one, however soon after its appearance cauterization has been had recourse to and however quickly it may have healed. Having so far done our best, the further progress of the disease must be watched; and, whatever the results may be, they are to be met according to the circumstances of the individual case.

Inoculation has been appealed to of late as a means of affording certain, positive, and unerring conclusions regarding the syphilitic or non-syphilitic nature of primary sores. According to the observations I have had the opportunity of making on this subject, it appears that in cases in which inoculation was practised on some part of the patient's own body, although what appeared the characteristic pustule was developed, no secondary symptoms

supervened. Again, in other cases in which inoculation on the body of the patient has failed entirely to produce any effect whatsoever, secondary symptoms have taken place afterwards. This was well exemplified in a very interesting case of a medical student, under my care some years ago, who inoculated himself from himself, in two or three places, without producing any result. Yet eruption and syphilitic iritis afterwards supervened. Mr. Lawrence saw this case with me for the iritis.

These results, though the reverse of what was at one time the received doctrine, are in accordance with those obtained by the most recent observers. The state of the case in regard to the diagnosis between true and false chancre by means of inoculation may, therefore, be stated to be the following. Inoculation of some part of the patient's own body with matter from a simple chancre of his genital organs is followed by a pustule. But this does not, any more than the parent sore, lead to secondary symptoms. On the other hand, inoculation of some part of the patient's own body with matter from a true syphilitic chancre of his genital organs, is not followed by a pustule*. The sore on the genitals,

* Mr. Henry Lee has found that, although an infecting sore is not capable of inoculation under ordinary circumstances, yet the same sore will, under a state of irritation, produce an inoculable secretion, and that the effects of the inoculation of that secretion will vary according to the amount of irritation present at the time the secretion was produced—generally in proportion to the puriform condition of the secretion inoculated.

however, is not the less followed by secondary symptoms. If the inoculation with matter from a true syphilitic chancre be performed on any other person affected with syphilis, even at the tertiary period, no result, in like manner, follows. If, however, the inoculation be practised on the body of a healthy person, with matter from a true syphilitic chancre, then a pustule running into true syphilitic chancre is produced,—a result which is, in fact, in the ordinary course, according to which the disease is propagated.

The explanation of these peculiarities, according to M. Rollet of Lyons*, who has written with great perspicuity on the subject, is that syphilis, like the small pox, or cowpox, renders the body already infected unsusceptible of further contamination. The simple chancre, on the contrary, not contaminating the system, but being quite local, the body of the same patient remains as susceptible to it as before, so that inoculation takes in him as well as in another.

In practising inoculation as a means of diagnosis in venereal affections, we must, therefore, carefully keep in mind the distinction between that performed on the patient's own body and that performed on another, and him a healthy person. But of course one would never think of trying the experiment on a healthy person.

* Gazette Médicale de Lyon, 16 Janvier, 1859.

Most commonly a chancre of the glans is not communicated by contact from a chancre of the corresponding part of the prepuce. It is the same with the vulva: there may be a chancre on the left labium, which does not communicate a chancre to the corresponding part of the right labium. Still examples apparently of such transmission do occur, probably under the conditions above referred to in the note, as indicated by Mr. Henry Lee. We can, moreover, easily imagine how absorption must be favoured by the prolonged contact between parts. The sores in such cases generally arise from pustules, and are seldom of any great size. They appear to be of the nature of simple chancre, though a true chancrous character may be engrafted on them, and they may afterwards become elevated, forming the raised and highly contagious condylomatous sore.

Though it thus appears that, by inoculation, whether natural or artificial, true chancre transmits to a healthy person only true chancre—and simple chancre, only simple chancre, such cases as the following are met with:—Two men have connection with one woman at a short interval—one of the men contracts a true chancre, followed by secondary symptoms,—the other man contracts several simple chancres merely, and, after they have healed, suffers no further trouble. The woman, on examination, is found to have a true chancre, and subsequently has secondary symptoms. In this case, did the

true chancre in the woman communicate the true chancre to the one man, and the simple chancres to the other? or might there not have existed in the woman, in addition to the true chancre, simple chancres also, which exploration with the speculum would have disclosed; so that, whilst the one man received his true chancre from the true chancre, the other man received his simple chancres from those simple chancres which might have existed? According to another supposition, the single true chancre was all that the woman had, but as the first man was free from constitutional taint, he contracted the true chancre; whilst the second man, having already suffered from constitutional syphilis, contracted ulcers having the character merely of the simple chancres. For it is found that, though infection is transmissible from true chancre to persons previously syphilitic, the resulting ulcer, according to the observation of M. Rollet, presents the characters of simple chancre merely. It is to be observed that simple-looking chancres in syphilitic subjects transmit, as in the case under consideration, sometimes a simple-looking chancre, sometimes a true syphilitic chancre, with the reputed characters well marked.

CHAPTER V.

TRANSMISSIBILITY OF INFECTION FROM SECONDARY SORES.

We have seen that syphilis is ordinarily communicated from a chancre or primary sore; and that it is also communicated from the sores of hereditary syphilis, which simulate the appearance of secondary ulcers. The question now arises, is syphilis communicable from common secondary sores?

That syphilis is not frequently communicated in this manner is evident from our experience in practice, for we seldom meet with an unequivocal case of the kind, if care be taken to exclude the cases of transmission from the sores of hereditary syphilis about which, we have seen, there can be no doubt, and also the cases of transmission from real chancre mistaken for a secondary sore—cases, for example, in which a primary chancrous pustule was mistaken for an ecthymatous pustule, or cases in which a primary sore, after communicating the infection, had become transformed into a mucous tubercle.

To settle the question, inoculation has been had recourse to. The results obtained from this test by Ricord and his followers went to shew that the

matter of secondary lesions is not inoculable; but as their experiments were performed on individuals already syphilitic, this conclusion was not to the point, because, as we have seen, individuals who have already had syphilis are unsusceptible of new attacks. Although, in the experiments of others, inoculation of persons labouring under constitutional syphilis was followed by syphilitic sores, this result proved nothing, for a wound under such circumstances will assume a syphilitic character, just as iritis, excited by cold in a syphilitic subject, presents itself as a syphilitic iritis. Indeed, irritation or wound *without* inoculation in a tainted subject may produce the same effects as irritation or wound with inoculation. To avoid these objections, other experimenters have operated on untainted subjects; and in a few instances it would appear that the inoculation has succeeded, but in the majority of cases it has failed. Ricord, it is said, now admits the transmissibility of secondary syphilitic lesions.

Practically speaking, it may be said that a healthy male runs little risk of infection from commerce with a female affected with secondary symptoms, and secondary symptoms only, excepting, perhaps, mucous tubercles of the genitals. But the case is different with a healthy female having connection with a constitutionally syphilitic male; for, as we have seen in Chapter III., although the woman may not directly contract the disease, yet, if she becomes pregnant, the fœtus inheriting

syphilis from the father will probably infect her. It is to be remarked that in almost all the alleged cases of transmission from secondary ulcers, it has been from the male to the female that the infection has passed. In such cases of infection of the mother by the fœtus, the first symptoms often have their seat in a region of the body where they could not have presented themselves, had the disease originated directly in sexual intercourse or even by any kind of contact. In a woman thus infected through the fœtus, the symptoms arose as follows: —Headache, general roseolar eruption, and in three weeks thereafter mucous tubercles in the throat and the genito-crural region; she had no chancre nor bubo. The man had no primary symptoms.

In regard to the cases in which transmission has been observed to take place through the medium of pipes, spoons, glasses, kisses, &c., from ulcers of the mouth, supposed to be secondary, of one individual to the mouth of another, it is to be observed that, though in some the ulcer may have been secondary, in others the ulcer was primary, not secondary. A primary sore may become transformed into a mucous tubercle, but whilst primary it may have communicated the infection. Other cases, again, were, no doubt, examples of the transmission of hereditary congenital syphilis.

It would appear that the matter of mucous tubercles, though not inoculable by the lancet, is

capable, by long-continued contact, of communicating the disease. We sometimes see a mucous tubercle on the inside of one hip near the anus, followed by a mucous tubercle on the corresponding part of the opposite hip. Is this second mucous tubercle occasioned by inoculation from the first? or does it not rather arise from the same general and local causes, which gave origin to the first, the neighbourhood of the anus being one of the most common localities where mucous tubercles present themselves?

The effect of the contagion of syphilis, when contracted by transmission from secondary sores, is, according to M. Rollet of Lyons, an ulcer which becomes developed after a variable period of incubation, which presents all the characters of the true primary syphilitic chancre, and is, like it, followed by other secondary symptoms. Inoculation with the matter of secondary ulcers on an uncontaminated individual, when successful, in like manner, produces an ulcer with the same essential characters as the infectious chancre.

Syphilitic ulcers of the mouth are, as we have said, not always secondary but often primary. It is important, therefore, to keep this in mind so as not to confound transmission from a primary ulcer with that from a secondary ulcer.

Ulcers on the head and face, we have above mentioned, are almost always of the true syphilitic

kind, whether primary or secondary. Knowing, therefore, that a chancre arising in a previously healthy person has been derived from contact with sores about the mouth of another person, or even contact with the saliva which is mixed with the secretions of the sores, we may be pretty sure that the chancre is of the true syphilitic kind.

CHAPTER VI.

POISON OF SYPHILIS.

The matter of the true primary sore is the most ordinary vehicle of the syphilitic poison; next the matter of the sores of congenital syphilis; rarely, the matter of secondary ulcers. The pus of buboes supervening on the simple chancre contains the virus of simple chancre as well as the simple chancre itself.

The contagion of syphilis sometimes appears to be conveyed by the matter of gonorrhœa, but in this case it has been shewn that it is *really* derived from the matter of chancres situated within the urethra or vagina, mingled with the blennorrhœal discharge thrown out at the same time from the mucous surface. Ricord, for example, in the course of his investigations, never met with a chancre contracted from a woman with gonorrhœa alone, there was always ulceration present somewhere in her parts, and *vice versâ*.

The syphilitic poison cannot be detected in the vehicle containing it by any peculiarity of character cognizable by the senses. Its existence is proved only by its effects, and its mode of action shews it

to be fixed, not volatile, infection taking place *per contactum*, not *in distans*.

The power of the poison is destroyed by decomposition of the vehicle in which it is contained, and by admixture with it of caustic substances, such as chlorine, alum, alcohol, wine, zinc, lead solutions, &c.

The question has been frequently agitated, whether the poison of syphilis can be generated anew at any time under favouring conditions? In reference to this, I would observe that, from cases which have come under my observation, I am convinced that there is always danger of contracting sores—simple chancres at least—incurred by those who indulge in promiscuous sexual intercourse, and that even under circumstances where it might be supposed almost impossible that any disease could exist. The conditions which tend to favour the generation of the poison, I cannot but think, consist mainly in the admixture of the secretions of the male and female, altered partly by the irritated condition of the organs whence they are derived, and partly by decomposition.

The syphilitic virus, we have seen, acts only when applied to an abraded surface or to a surface covered with a delicate epithelium. From this it is to be inferred that absorption or imbibition of the matter is a necessary condition for its action. Yet it is particularly to be observed, that the poison is not received at once into the blood so as to be carried

by the circulation into the system at large, and to contaminate it—though, by the time the chancre makes its appearance, this may have taken place. Hence it is, that cauterizing a true chancre in the hopes of preventing secondary symptoms is seldom of use in effecting that purpose. Considering, therefore, that the period of incubation of true chancre, *i.e.* the period from the inoculation to the outbreak of the same, is on an average fourteen days and may be as long as nineteen days, and that cauterization does not prevent secondary symptoms, the question has been asked, Is the true chancre, instead of being at first, as commonly supposed, merely local, not a manifestation that general infection has already taken place? The induration of the chancre, at least, has been considered such a manifestation.

It is in consequence of the inflammatory stasis in the vessels of the part, that the virus is not at first received into the blood and carried by the circulation into the system at large. Remaining, however, in the interstices of the tissue at the place where it was imbibed, the virus is mingled with the matter which constitutes the contents of the pustule that is formed, or the secretion of the ulcer into which the pustule runs by bursting, and, acting in the manner of a ferment, gives rise to the reproduction and multiplication of the same poison in that matter, so that the latter is capable of further communicating the disease by inoculation

The fermentation going on, the matter that continues to be formed on the surface of the ulcer, continues to acquire the poisonous quality, until such time that the ulcer begins to heal, which is usually about the third week, and the composition of the lymph exuded on its surface consequently becomes altered in character.

Such appears to be the mode in which inoculation in any case is first accomplished, but it is the specific nature of the inoculated matter in each individual instance which determines the reproduction and multiplication of the specific poison in the matter of the pustule or ulcer produced.

In the process, from the first application of the poisonous matter to the development of the pustule and formation of the chancre, a certain time is necessarily occupied. The time—as above stated—may vary, however, according to the circumstances of the case, the condition of the patient, &c.

The process may end with the local affection, or there may follow, after a longer or shorter interval, —from one to six months—a general infection of the body manifested by constitutional symptoms. The mode in which this general infection is brought about we now proceed to study.

We have seen that the period after the primary infection at which general contamination of the system may declare itself, is found to vary. Sometimes, the poison remains dormant in the system for a long time after the primary sores have healed,

without manifesting itself by external symptoms. It is, perhaps, not until some accidental cause occurs to disturb the equilibrium of the system that the poison is stirred into activity, and those changes in the blood are produced which give rise to the secondary symptoms. The causes by which the equilibrium of the system is thus liable to be disturbed, are any depressing influences, disordered digestion, exposure to cold, damp weather, a check to the healthy action of the skin, &c.

Of the various constitutional symptoms, some, we have before seen, are more general in their seat and character,—some more particular; the latter consisting in cutaneous eruptions, sore throat, iritis, disease of bones, &c. That general infection of the system depends on absorption of the poison into the general mass of the circulating blood, and the consequent contamination of that fluid—(the contamination being afterwards kept up by a constant reproduction and multiplication of the poison, as above explained)—there cannot be a doubt. It is, however, to be observed that cutaneous eruptions, sore throat, iritis, disease of bones, &c. may occur in cases in which there is no syphilitic taint. And when they do occur in cases in which there is syphilitic taint, they seem not to be necessarily induced by the poison, but are excited by any accidental cause. The constitutional taint, however, may be at the same time acting as a predisposing cause. However this may be, it is on the contami-

nated state of the blood that the peculiar characters of the cutaneous eruptions, the sore throat, the iritis, the disease of bones, &c. proximately depend. Hereditary transmission, moreover, proves that the poison is in the blood.

Through what channel does the poison get into the blood from the primary sore? That the poison of simple chancre may be taken up by the absorbents, and the lymph in those absorbents thereby contaminated, appears to be indicated by the occurrence of virulent buboes. The matter of these buboes, we shall see, contains the poison of the simple chancres in which they originated. The poison must, therefore, be carried by the absorbents from the chancre to the inguinal glands, where it excites inflammation and suppuration. The inflammation of the inguinal glands does not appear to be always a mere extension along the walls of the absorbents. The inflammation cannot be owing to contamination of the blood, because bubo occurs independently of any general infection. Although absorbents thus take up the poison from simple chancre, and though this lymphatic absorption leads to the virulent suppurating bubo, it does not appear to be the channel by which the true syphilitic poison gets into the blood—because, although the inguinal glands may become affected in cases of indurated chancre, presaging constitutional syphilis, the pus which is formed, if suppuration should take place, which is rare, is not the vehicle of any poison—is

not inoculable, like the matter of suppurating bubo consequent on simple chancre.

The mode in which the true syphilitic poison gets into the blood is most probably by direct absorption into the capillaries and venous radicles. The inoculated matter is not absorbed at the very commencement, because there is then stagnation of blood at the place; but as the inflammation around subsides, and the circulation becomes re-established, the poison is readily absorbed into the capillaries and venous radicles, by which it is carried away to be mingled with the general mass of blood. But the quantity of poison which can thus be received into the blood must be small. It may, however, be reproduced and multiplied as it is in the matter of the primary sore, and thus come to exist in the blood in sufficient quantity to contaminate all the solids and fluids, although it is certain parts only in which its effects are very distinctly manifested—viz. the skin, mucous membranes of the throat, nose, &c., the iris, &c. &c.

Time must be occupied in the reproduction and multiplication of the poison in the blood, so that it may accumulate in sufficient quantity, and with sufficient intensity, to contaminate the solids and fluids, and thus give occasion to the outbreak of secondary symptoms, under the operation of accidental exciting causes.

CHAPTER VII.

INDUCED IMMUNITY OF THE SYSTEM AGAINST NEW CONSTITUTIONAL INFECTION.

After one attack of constitutional syphilis, further liability to a new general infection is for the most part extinguished. This does not imply that the individual may not contract new chancres from another person affected with indurated chancre. It merely implies that he will not become constitutionally infected from those new chancres. He may, however, communicate chancres from them to a person who never had the disease before, and that person may become infected with constitutional syphilis in consequence.

Though not liable to a new constitutional infection, the person remains as subject as before to relapses or new outbreaks of his old disease. But how is relapse of an old constitutional syphilis to be distinguished from a new infection? Five well-marked, constant, and easily-recognisable characters, says M. Diday, give the *diathesis which is commencing* its pathognomical and differential physiognomy, viz.—1°. It succeeds to a primary indu-

rated chancre. 2°. It manifests itself in from five to seven weeks after the chancre. 3°. It is accompanied at the outbreak by premonitory symptoms, such as headache, rheumatic pains, &c. 4°. Superficial structures only are at first affected, but in the progress of the disease deep structures become implicated, and the morbid alterations assume a graver import. 5°. In each phase of its progress, it has a special curability, viz. by iodine in the premonitory phase,—by mercury, in the secondary, —and by iodine again in the tertiary.

After a person has been once affected with constitutional syphilis, any symptoms which happen to appear after a new chancre, may sometimes be of the same nature as, but *cannot be less deeply seated than, the last symptoms*, which have closed the era of the first outbreak.

A person with constitutional syphilis recently contracted, could never before have had the disease.

It is unnecessary to give mercury for any subsequent chancre, if the patient has already had constitutional syphilis.

CHAPTER VIII.

EXTINCTION OF THE SYPHILITIC DIATHESIS BY "SYPHILIZATION," OR REPEATED INOCULATIONS WITH CHANCROUS VIRUS*.

On the principle that one fire eats out another's burning—that *similia similibus curantur*, repeated inoculation of the patient all over the body with chancrous virus, has of late years been brought forward as a means of curing constitutional syphilis, to the exclusion of mercury. And striking facts are adduced in proof of the efficacy of the practice, by Auzias Turenne of Paris, Sperino of Turin, Boeck of Christiania, Danielssen of Bergen, and others.

Syphilization is said to succeed best when the case has not been previously treated with mercury.

The inoculations require to be in hundreds all over the body, and carried on for months. By these inoculations, chancres are at first produced, but sooner or later the skin becomes unsusceptible of further inoculation, and no more chancres appear.

* For much of the matter in this chapter I am indebted to the Number of the *British and Foreign Medico-Chirurgical Review* for January 1859.

According to Professor Boeck of Christiania, the time between the inoculation and the appearance of the pustule or chancre is, in adults, about twenty-four hours—in children, longer. The time which the chancres, thus induced, take to heal varies from a few weeks to some months. In the practice of Professor Sperino of Turin, Mr. Gamgee of Birmingham, relates that he observed the cicatrices of the earlier inoculations to be of the size of a three-penny piece—whilst those of the later inoculations were of the size of pins' heads, shewing that the system, or at least the skin, had become less and less susceptible to the inoculations. The skin of different parts of the body, according to Boeck, shews different degrees of susceptibility to the inoculations; thus, the chancres induced on the nates and thighs were usually found to be the largest and deepest. When the inoculations ceased to take on the arms and sides, they still occasioned large chancres on the nates or thighs. When inoculation was practised on the thighs first, it often did not take when afterwards performed on the arms and sides.

Dr. Boeck has seen the chancres induced by inoculation assume a phagedenic character, which, however, always disappeared under a continuance of syphilization.

According to Professor Faye of Christiania, a cure took place in many cases before immunity of the skin to further inoculation was attained. In

other cases, the disappearance of the constitutional symptoms coincided with the supervention of the immunity. In certain cases, again, the constitutional symptoms did not vanish even when immunity of the skin to further inoculation had been attained.

But syphilization, it is said, not only cures, but also protects the patient against any new infection —in fact, is *prophylactic* as well as *curative*. We have in the preceding chapter seen that after an attack of constitutional syphilis, further liability to a new general infection is for the most part extinguished—in short, that constitutional syphilis is prophylactic of itself. In a case, therefore, of constitutional syphilis, alleged to be cured by syphilization, future non-liability to a new general infection cannot be attributed to the syphilization. The question as to the prophylactic powers of syphilization ought, therefore, to be resolved into this:—Can repeated inoculation with the matter of indurated chancre be practised on a hitherto untainted person without infecting him with constitutional syphilis, and yet render him unsusceptible of constitutional infection in the ordinary way at any future time?

We have not been able to extract a direct answer to this question from the writings on the subject we have had the opportunity of consulting; but from the following case related by Danielssen, we may infer a negative to the first part of the ques-

tion:—A patient who had been previously inoculated with matter of soft or simple chancre on nearly 400 places, was, by mistake, inoculated with matter from an indurated chancre. In a month after, a regular indurated sore appeared in the cicatrix of an old chancre, and on that secondary symptoms supervened. This case also shews that the 400 inoculations with the matter of soft or simple chancre had not acted as a prophylactic against true syphilis.

The question now here suggests itself, With which kind of matter—that of *soft* or simple chancre, or that of true *indurated* chancre—have the syphilisers usually practised their inoculations? If the matter of indurated chancre had been used for inoculating the patient himself, we have before seen that no pustule or chancre would have been produced; and if the matter of indurated chancre had been used for inoculating a person hitherto untainted with syphilis, we have just seen that the person would most likely have been infected with true syphilitic chancres, followed by constitutional symptoms. If, on the contrary, the matter of *soft* or simple chancre had been used for the inoculations, pustules and chancres would have been produced in the manner they are represented to have been in the various cases published, and that whether the person inoculated was himself the bearer of the chancres whence the matter was taken, or whether he was previously unaffected with sores.

It would appear, therefore, that the inoculations have been practised with the matter of simple chancres. It is certain, at least, from the case above quoted, that Dr. Danielssen is in the habit of using the matter of simple or soft chancres. Although Dr. Boeck does not admit the distinction between the true indurated and the soft or simple chancre, it is to be inferred that he also has used the matter of soft or simple chancre in his inoculations, as he puts down the period between the inoculation and the appearance of the pustule or chancre at about twenty-four hours only—a period very much shorter than that which, we have seen, the true syphilitic pustule or chancre takes to appear. Dr. Faye says that inoculations on untainted persons produced chancres on different parts of the skin at the same time, without infecting the system, and certainly *without producing the supposed characteristic induration* of the base of the chancre. Are we to understand that in such cases the matter of indurated chancres was used for the inoculations? That it was not so, but merely the matter of soft or simple chancre, we are inclined to believe.

Dr. Danielssen, of Bergen, one of the latest and best writers on "Syphilization," thinks that the inoculations are local in their action,—being merely so many points of counter-irritation on the skin,—and agrees with Dr. Faye that the unsusceptibility which the skin at last shews to further inoculation depends merely on a temporary loss of its reacting

power, and that the susceptibility to inoculation may, after a time, return.

That, under the influence of "Syphilization," the constitutional symptoms of syphilis diminish and disappear, the patient at the same time improving in health, is a fact too well attested to admit of doubt; and yet it is very extraordinary that it should be so, seeing that the action of the inoculations appears to be only local. Would the production of tartar emetic pustules, in small successive crops over all the body not answer as well as the inoculations? Benefit, it is said, has been derived from the repeated application of blisters in cases of syphilitic *scaly*, *papular*, and *pustular* eruptions.

As to the prophylactic power of "Syphilization," such as we have above defined the question, that has not been proved.

From this notice of the results of experiments on syphilization, we must conclude that the propriety and utility of the practice are not sufficiently established to warrant us in entertaining it, except with hesitation and reserve.

CHAPTER IX.

INFLUENCE OF CLIMATE, AGE, SEX, AND CONSTITUTION ON SYPHILIS.

CLIMATE.

In warm climates, syphilis is mild and easy of cure; in cold climates, the disease occurs in a severer form. The mildness and easy curability of syphilis in warm climates, refers to the disease as it occurs among the natives, not as it occurs in a stranger, a native of a colder climate, who may have contracted the disease in the country. Thus, it was found by the surgeons attached to the British army in Portugal, that though the disease was mild among the Portuguese, it was of a severe character among the English soldiers who had contracted it from Portuguese women. The mildness of the disease cannot, therefore, be looked on as alone due to climate. The view taken of the question by the English army surgeons in Portugal was that the poison is exhausted and has lost much of its virulence, among the Portuguese, in the same manner that the natural small pox, unresisted by inoculation, appears to have changed in Portugal into a very mild affection which does well under any treatment.

The opinion that the venereal disease would in time entirely cease is of long standing. The idea that it would at some period be extinguished is as ancient as the times of Fracastorius. Certainly, the disease, after breaking out in Italy, did not continue many years with its first virulence.

In the warm climates where syphilis is so mild it is at the same time very common—indeed, it has been remarked that every person has the disease. From this, it might perhaps be concluded that its mildness is owing to a true *syphilization* or saturation of the constitution with the syphilitic virus—a conclusion which probably comes to much the same thing as did that before mentioned as come to by the English army surgeons in Portugal. The severe effects of the inoculation of the exhausted syphilitic virus of Portugal into the system of the British or other strangers might be viewed as owing to their less tainted constitution, though it may be owing to a peculiar susceptibility of race. Dr. Livingstone found that when syphilis happens to be contracted by the pure negroes of Central South Africa, it soon dies out, but that, on the contrary, it spreads with great virulence among people of mixed European and black blood. Dr. L. observes as follows:—

"A certain loathsome disease which decimates "the North American Indians, and threatens ex- "tirpation to the South Sea Islanders, dies out "in the interior of Africa without the aid of

" medicine. And the Bangwaketse, who brought " it from the west coast, lost it when they came " into their own land, south-west of Kolobeng. " It seems incapable of permanence in any form " in persons of pure African blood anywhere in " the centre of the country. In persons of mixed " blood it is otherwise; and the virulence of the " secondary symptoms seemed to be, in all the " cases that came under my care, in exact pro- " portion to the greater or less European blood in " the patient. Among the Corannas and Griquas " of mixed breed, it produces the same ravages " as in Europe; among half-blooded Portuguese " it is equally frightful in its inroads on the " system; but in the pure negro of the central " parts it is quite incapable of permanence. " Among the Barotse, I found a disease called " Manassah, which closely resembles that of the " foeda mulier of history*.

AGE.

Previously healthy young subjects are very susceptible of the syphilitic infection. Sometimes the poison acts in them with great virulence, but sometimes the disease proves of a benign character —the symptoms being moderate, and disappearing of themselves with care or under simple treatment, and shewing but slight tendency to relapse. In old

* Livingstone's Travels in South Africa, p. 128.

persons the disease often proves refractory; it is also prone to assume a malignant form, in which case there is rapid destruction of parts; even when a cure appears to have taken place, the patient is not secure against relapse.

SEX.

As regards sex, the disease is, in general, more severe in men than in women.

CONSTITUTION.

In persons of scrofulous and other bad states of constitution, in drunkards or under improper treatment, the disease is disposed to take on an obstinate and malignant character from the action of any occasional cause acting strongly on the system, and that sometimes after a long intermission of the symptoms.

CHAPTER X.

NON-SPECIFIC SORES, VEGETATIONS, &c.

NON-SPECIFIC SORES.

Of the sores which present themselves on the genital organs after promiscuous sexual intercourse, there are, we have seen, two principal kinds :—the one distinguished as the true syphilitic or *indurated* chancre,—the other, as the false, simple, or *soft* chancre. Both are contagious, but it is from the former only that secondary or constitutional symptoms arise, though it is the latter which is most liable to be attended by suppurating bubo. True chancre is usually solitary, or if there be more than one, they all appear at the same time. On the contrary, there are usually several simple chancres, but instead of occurring all at once, they may appear in succession. Simple chancres are much more frequently met with than true chancres—in the proportion, it has been reckoned, of about two to one. True chancre is not readily inoculable on the body of the patient himself, nor on the body of another person already affected with syphilis. Simple chancre, on the contrary, is inoculable, not only on the body of the patient himself, but also on the body of any other individual.

Besides sores of the nature just referred to, it is important to remember that ulceration of the genitals is occasionally met with originating from simple causes, such as an herpetic eruption or even a slight injury, abrasion or excoriation. Such ulcerations, in consequence of a disordered state of the constitution, neglect of cleanliness, &c. may assume an unhealthy and obstinate character, and are liable to be mistaken by those not conversant with the subject for venereal sores. The following is a case in which suspicious appearances presented themselves, though the cause was in reality of a very simple nature :—A young lady, having received an injury on the right labium, swelling and inflammation rapidly took place; and when I first saw her—some few days after the accident—a slough, of considerable size, was being thrown off from the inner surface of the labium. On separation, it left an ulcer, with a sharp, well-defined edge, which proved troublesome, and took a long time to heal. At one period there was considerable thickening about it, so that I was almost inclined to look upon it with suspicion, and was nearly thrown off my guard by its appearance. The hymen was perfect, and there was that maidenly delicacy about the patient which was unmistakeable. There was, in fact, nothing venereal about the sore.

In such cases we must take every circumstance into account. I have frequently seen syphilitic sores in females of an exactly similar appearance ;

and, if I ever saw a chancre, so far as external or visible characters are concerned, it was this. What a grievous mistake might here have been made!

Abscess in the loose cellular tissue of the labium, from slight mechanical injury, now and then takes place. Bursting on the inner surface, it leaves a sinus, which is sometimes a long time in filling up. A case of this kind, where there is leucorrhœa, might be mistaken for gonorrhœa.

The matter given out from non-venereal ulcerations of the genitals, though in itself comparatively innocuous, may acquire an acrid and irritating quality, and thus become capable of giving rise to ulcerations in another person with whom the affected individual may have sexual intercourse. An old patient called on me a few days ago, to say that his wife was sinking from *carcinoma uteri*. This gentleman has experienced for years, at times, excoriations of the glans, and irritable discharges from the urethra. He has, however, felt satisfied of the cause. On one occasion, an herpetic sore, from the irritation just mentioned, was a long time before it healed, and might have been looked upon with great suspicion. For the last two years, intercourse with his wife having been interdicted, he has been free from excoriations and urethral discharge.

It is also most important to remember, that it is by no means uncommon, shortly after marriage, and in cases in which virginity on either side is beyond suspicion, to find the genital organs, from the repeated

irritation to which they are, under the circumstances, exposed, become affected with ulcerations of the kind under consideration. Such an occurrence being to susceptible minds frequently a source of much annoyance and suspicion, it is peculiarly satisfactory for the medical man to be able to reassure the parties, by explaining the simple nature of the affection, and that, with care, all will go right again.

Symptoms simulating those of constitutional syphilis, such as eruptions, sore throat, &c. may, if I mistake not, supervene on ulcers of the genitals not truly syphilitic. Whether these constitutional symptoms arise from absorption of the matter generated by the sores themselves is another question, just as the mode of origin of gonorrhœal rheumatism is a question. It is, however, open to doubt whether or not such cases are really always so simple in their nature and so free from syphilitic taint as might be supposed.

VEGETATIONS.

Excrescences of a lobed form are met with on the mucous membrane of the vulva, at the reflection of the prepuce and elsewhere, on or in the neighbourhood of the genital organs, especially where two surfaces are naturally in contact. As these vegetations generally occur along with some venereal affection they have been viewed as themselves of true syphilitic nature. But there is no evidence that such is the case; they are not necessarily connected

with syphilis in any form, they are neither a primary nor a secondary symptom, and they are neither contagious nor infecting. Of course, a chancre may be contracted by a person with vegetations, and on that chancre secondary symptoms may supervene; or vegetations may arise in a case of chancre, and if they be cut off, the resulting wound may assume the specific characters of the adjacent sore. If vegetations should happen to exist along with constitutional syphilis, they are quite uninfluenced by it. Whether the syphilitic symptoms be secondary or tertiary—whether they subside under mercurial treatment or not, the vegetations remain the same.

Vegetations are merely of the nature of warts and are developed on a surface which is the seat of irritation. An acrid matter is secreted in the situation of the vegetations, and this by coitus may communicate a puro-mucous inflammation to the other individual, which may be followed by the development of vegetations. But properly speaking, vegetations have no specifically contagious quality.

CHAPTER XI.

GONORRHŒA, GONORRHŒAL OPHTHALMIA, AND GONORRHŒAL RHEUMATISM.

GONORRHŒA.

True gonorrhœa is a purulent inflammation of the mucous membrane of the urethra in the male, or of the vagina and urethra in the female, contracted by coitus, the man giving it to the woman, or the woman to the man. The purulent discharge is the vehicle of the contagion. This discharge brought into contact with any other mucous membrane besides that of the genitals, is capable of exciting a similar purulent inflammation. Gonorrhœal ophthalmia is an example of purulent inflammation of the conjunctiva — the mucous membrane of the eye—caused by the accidental application of gonorrhœal matter to it, whether from the affected genitals of the person himself, or from those of another person.

A man affected with gonorrhœa will be found, on inquiry, to have had connection with a woman from two to five days before his attack, and that the woman had a discharge at the time.

The patient suffers more from a first than from subsequent attacks of gonorrhœa. Left to itself, the disease goes on for a month or two, when the discharge either ceases or becomes thin and serous, constituting the chronic state named *gleet*.

A man with gonorrhœa is liable to be affected with epididymitis, prostatitis, arthritis, sympathetic bubo, &c.; but the disease is not followed by any secondary symptoms, like syphilis. A tendency to rheumatism, however, is often left, leading to repeated attacks of inflammation of the iris, joints, &c. Women may have inflammation of the ovaria and sympathetic bubo, but are not so subject to rheumatism as men.

It was long ago demonstrated that gonorrhœal matter comes, not as was previously supposed from ulcers of the lining membrane of the urethra, but by exudation and secretion from the inflamed mucous surface unaffected with any breach of continuity, except, perhaps, we might now add some degree of abrasion from partial exfoliation of its investing epithelium. In some instances, if I mistake not, the *lacuna magna* is the source of a puro-mucous discharge, which frequently continues for a long time, and so long as it does continue, is a cause of annoyance. From cases which have come under my notice, I have been led to consider this large mucous follicle as the sole source of the discharge. In other cases, again, the discharge has appeared to me to come from the cavity of a small abscess. In

gonorrhœa, abscess every now and then forms by the side of the frenum, and most frequently bursts externally, though occasionally into the urethra. In this latter case it is sometimes, I believe, the source of a chronic discharge, small, perhaps, in quantity, but which may continue even after the gonorrhœa has entirely ceased. Such cases are by some very likely to be considered of more importance than they really are. The abscess in deeper seated parts, however, which sometimes occurs, is of a very severe and grave character.

As elsewhere mentioned, I have met with many cases of purulent discharge, confined to the front part of the urethra, and attended by a pouting, irritable state of the orifice, which patients have told me has annoyed them for months, and for which they have taken internal medicines until the stomach has been perfectly nauseated. This form of discharge is in numerous instances kept up by the constant friction of the lips of the urethra against the clothes, the glans being denuded in consequence of an entire or partial paraphimosis, from shortness of the prepuce. By merely shielding the orifice the discharge will frequently cease in eight or ten days.

Though the most common form of inflammation of the mucous membrane of the urethra, with puriform discharge, is that which is excited by contact with the virus of gonorrhœa, and free from any syphilitic character, we occasionally meet with cases, beginning in the same way as ordinary gonorrhœa,

and so far running a similar course, but in which, sooner or later, a small ulcer appears on the margin of the lip of the urethra, which spreads from day to day until it surrounds the entire orifice. The ulcer thus formed possesses all the characters of true syphilitic chancre, and is frequently, and that at a very early period, followed by secondary symptoms. This is owing to a specific syphilitic infection in addition to the gonorrhœal.

In the female, condylomatous sores on the labia, between the labia and thighs, and between the nates, are sometimes met with accompanying gonorrhœa.

Glando-preputial gonorrhœa, *balanitis* or *balano-posthitis* is a puriform inflammation of the mucous membrane of the glans and prepuce, which is quite free from any syphilitic admixture, leading neither to primary sore nor secondary symptoms. There is redness of the mucous membrane of the glans and prepuce, with muco-purulent secretion and itching, scarcely amounting to pain. There may be abrasion of the epithelium of the glans and mouth of the urethra—and sometimes phimosis. Balanitis frequently forms part of a gonorrhœa, but may have a separate existence. It is brought on from connection with a woman affected with a gonorrhœal or leucorrhœal discharge, or from too frequent coitus, even with a healthy woman, or from want of cleanliness, from collection of the sebaceous matter of the glandulæ odoriferæ, from over-exertion, errors of diet, &c. Bálanitis may

also occur in connection with herpes preputialis, or with inflamed vegetations.

Though a chancre may supervene on balanitis, it is from a separate specific syphilitic infection. Simple balanitis does not, as we have said, produce a chancre, nor is it followed by secondary symptoms; but chancre or syphilitic mucous tubercles may cause a balanitis. Simple balanitis may be accompanied by sympathetic bubo, and may give rise to vegetations.

GONORRHŒAL OPHTHALMIA.

Gonorrhœal Ophthalmia is a purulent inflammation of the conjunctiva, occasioned by the application of gonorrhœal matter to the eye. The eyelids are much swollen, and the sclerotic conjunctiva is, by exudation into the cellular tissue underneath, rapidly raised up all round the cornea, forming a great and inveterate chemosis, which, by its pressure, leads to ulceration and sloughing of the cornea.

This destruction of the cornea may take place in forty-eight hours from the commencement of the disease; and even when the eyeball is not thus externally injured, it may be left so disorganised internally that vision is annihilated.

Gonorrhœal ophthalmia is commoner in males than females, though of comparatively rare occurrence in either sex. It is sometimes met with in children, and other persons unaffected with gonorrhœa, the matter having been applied to the

eye through the accidental use of foul cloths, carelessly left lying about by a person labouring under gonorrhœa.

In general, one eye only is affected.

Two gentlemen, travelling together, shared the same cabin on board a steamer. They had been at sea about ten days, when one of them was attacked with inflammation in one of his eyes attended by great pain and puriform discharge. A surgeon on board, who was consulted, at once suspected the complaint to be gonorrhœal ophthalmia, and asked the patient if he was suffering from gonorrhœa. Being answered in the negative, the surgeon called two other surgeons, who were in the ship, into consultation, and they both agreed with him that the case was one of gonorrhœal ophthalmia.

On making inquiries, it was ascertained that the other occupant of the cabin was affected with gonorrhœa, and it was supposed that the patient had caught the disease in his eye from some of the towels which his companion had been using.

The ophthalmia ended in complete loss of sight of the eye.

GONORRHŒAL RHEUMATISM.

Men labouring under gonorrhœa are liable to rheumatic inflammation of the joints and of the iris, sometimes also of serous membranes. That a causal connection exists between the gonorrhœa and the rheumatic inflammation is shewn by cases in which

the latter occurred whenever the patient became affected with a new attack of the former, and cases in which, on a relapse of an imperfectly cured gonorrhœa, rheumatism again supervened.

The rheumatic affection of the joints is a synovitis with effusion, commonly seated in the knees or other large joints. It is of a rather severe character, not disposed to subside quickly, and does not readily pass from one joint to another. It has a great disposition to relapse.

Gonorrhœal iritis resembles ordinary rheumatic iritis, but is of a very severe character, and is attended with copious exudation of lymph. It usually occurs towards the decline of the discharge from the urethra. It may precede, accompany, or follow an affection of the joints—sometimes the two alternate —sometimes it is the sole manifestation of gonorrhœal rheumatism. An iritis which has originated in gonorrhœa has a great tendency to relapse without any new urethral discharge, especially if the treatment of the first attack has been mismanaged, as is often the case.

Gonorrhœal rheumatism is of rare occurrence in women.

Though a causal connection between gonorrhœa and rheumatism cannot be denied, it is not easy to say in what the connection consists. That the patients who suffer from this harrassing and troublesome form of rheumatism are generally more or less of the rheumatic diathesis, I am inclined to believe,

though M. Rollet's observations would make it appear that gonorrhœal rheumatism is not owing to an original predisposition to common rheumatism, nor to its ordinary exciting cause; nay, persons previously subject to common rheumatism have, it is said, ceased to suffer from it after having had a gonorrhœa.

A common opinion is, that the rheumatism is occasioned by the absorption of gonorrhœal matter, and consequent infection of the blood; but to this it has been objected that gonorrhœal rheumatism either does not occur, or is rare in women in whom infection of the blood would be as likely to take place as in men. According to Rollet, the blood in gonorrhœal rheumatism is little or not at all buffy.

Though in some cases subsidence of the discharge from the urethra may have preceded the accession of the rheumatism, this is not the rule, and therefore the attack of rheumatism cannot be said to be owing to metastasis.

As suggested by M. Rollet, some sympathetic connection might be supposed to exist between the lining membrane of the urethra and the structures affected with gonorrhœal rheumatism—a view in favour of which is the fact that rheumatism has been observed to occur in connection with lesions of the urethra from other causes. The simplest explanation of the etiology of gonorrhœal rheumatism, perhaps, is this:—Between the urethra,

as part of the urinary system, and the skin, there is a close sympathy; and it is very much through the skin that the organs which are the seat of gonorrhœal rheumatism are influenced. In some cases we must consider the urethral discharge as a manifestation of rheumatism, set up, not by contact with gonorrhœal matter, but from temporary irritation, &c. In a gentleman at present under my care I am the rather inclined to attribute the rheumatism to this cause, than to a contracted gonorrhœa, although the patient has certainly been exposed to it. In the case alluded to, the patient was confined to his bed from an injury to the leg. After a time the knees became swoln from effusion into the joints. The question was then asked, whether he had suffered from urethral irritation? The answer was in the negative; but a few days after this, urethral discharge declared itself. From circumstances, it is possible it may have been excited by irritation, or, it is possible, from gonorrhœa. Thus far it is pretty conclusive to my mind that, in this particular instance, the effusion into the joints manifested itself before the discharge from the urethra. The patient had never before suffered from any venereal affection whatever.

CHAPTER XII.

DISCHARGES FROM THE URETHRA NOT OF A SPECIFIC GONORRHŒAL CHARACTER.

Forms of inflammation of the mucous membrane of the urethra with puriform discharge occur, which are, as well as gonorrhœa, contracted by sexual intercourse, though under circumstances where there is no reason to suspect venereal taint of any kind, the cause being prolonged venereal excitement, perhaps keeping up congestion, whereby the ordinary secretion of the mucous membrane of the urethra is rendered both thicker and more copious, as in the following case :—

A gentleman, aged fifty-five, a frequent "diner "out," and a "champagne drinker," after five or six years' widowhood, married a widow, much younger than himself. The third or fourth day after marriage, the gentleman suffers much heat, pain, and irritation in the urethra, with a purulent discharge. About the tenth day, the lady also experiences much irritation in the vagina, with puriform discharge. At the end of a fortnight, both husband and wife are confined to their bed, suffering from all the

symptoms of gonorrhœa—the husband with inflamed glands in the groin in addition. By giving up high living and champagne drinking, adopting a cooling regimen, with perfect quietude, and abstaining from the exciting cause, both got well again in a fortnight.

A common cause, also, is irritation from contact with what I call the natural morbid secretions of the female parts, such as leucorrhœa, lochia, &c.

In the female, discharges from the vagina, destitute of any venereal taint, are common, though capable of exciting in men who may have connection with them inflammation of the urethra, with puriform discharge. "Whatever," says M. Diday*, "be the "degree of cleanliness, the apparent health, the "presumed virtue, the real virtue, even virginity "of any woman, she may have vaginal discharge "from some cause, often very innocent—metritis, "chlorosis, simple catarrh, the consequence of "delivery, dysmenorrhœa,—as well as from gonor-"rhœa, however contracted. Now, simply because "she has a discharge of some kind, she is in a "condition to transmit a discharge to a man having "intercourse with her†." On the other hand, the practical truth must always be borne in mind, that

* Exposition Critique et Pratique, &c., *ut supra*.

† We sometimes meet with puro-mucous discharge from the vagina in female children, accompanied by purulent ophthalmia; the latter, no doubt, having been excited by matter accidentally conveyed from the vagina to the eye, as happens in cases of true gonorrhœal ophthalmia. This discharge from the vagina appears sometimes to be occasioned, sympathetically, by the irritation of the

any of the puriform discharges from the male urethra, of the character above mentioned, may give rise to vaginal discharge. As a general rule, therefore, we ought to be very guarded in our opinion as to the propriety of contracting marriage under the circumstances. We ought not take upon ourselves any unnecessary responsibility.

But the forms to which I wish here to direct attention are those arising from causes wholly unconnected with sexual intercourse, or at least proximately so. Irritation being once set up in the genital organs, from any cause whatsoever—and there are many, we shall see, which tend to produce it,—is accompanied with puro-mucous discharge, which may continue for an indefinite period. The discharge may be slight, and in itself harmless (provided no promiscuous intercourse take place); yet, if looked at in a wrong light, as all such discharges are liable to be, it may prove a source of much annoyance, disquietude, and suspicion. It is, therefore, of great importance that the medical attendant should be ready to clear up and explain the nature of such cases, and thus relieve the minds of patients and their friends.

rectum by ascarides, or by ascarides which have actually made their way from the anus to the vagina. Vaginal discharge in young female children is calculated to cause much alarm at first, but this may be quickly allayed by explaining the nature of the case. The treatment is simple: a dose of calomel and scammony, and the use of a weak solution of the sulphate of zinc as an injection into the vagina.

The mucous membrane of the urethra, then, is subject to inflammation, with puriform discharge, from various other causes besides the venereal poison. The mechanical irritation of a bougie, or the chemical irritation of a stimulating injection into the urethra, has been found to excite inflammation with puriform discharge. Thus, I have known the injection of soap and water, or laudanum —which had been used to wash out the urethra after a promiscuous connection, with a view to prevent gonorrhœa—occasion irritation, inflammation, and discharge. Exposure to cold also acts as an exciting cause. Herpes preputialis may extend into the urethra and give rise to ulceration there, with or without discharge, and accompanied by severe pain, especially on the introduction of a bougie.

That some discharges from the urethra are of a scrofulous origin was long ago suggested by Mr. John Hunter. Of this there can be as little doubt as that the affections of the lachrymal passages are of that nature. The rheumatic or gouty diathesis also sometimes manifests itself in urethral discharge. At any rate, in these diatheses,—the scrofulous, gouty, and rheumatic—there is a predisposition of the mucous membrane of the urethra to be more readily affected, by occasional causes, with blennorrhœa, just as we find to be the case with the conjunctiva and lachrymal passages of the eye. There is a vexatious form of discharge named by the

French *gonorrhoé à répétition*, but which might not inappropriately be named Remittent Rheumatic discharge. It follows pretty much the same course, and occurs in the same constitutions as the rheumatic ophthalmia, iritis, &c. (with which, indeed, it sometimes alternates,) coming and going, and influenced by the same causes, declaring itself from time to time, and that often without any sufficient assignable cause. The true source of this form of discharge must be looked for in the general rheumatic diathesis. It is, in fact, an exponent of rheumatism, or, it may be, in some cases, of gout.

In stricture of the urethra and diseases of the prostate we often meet with puro-mucous discharge. Cases frequently occur in which there is much irritation of the anterior part of the urethra, attended with a glairy, sometimes muco-puriform discharge, with shreds of lymph in the urine. Here the disturbance at the orifice of the urethra is symptomatic of a disordered state of the neck of the bladder and posterior part of the urethra. In these cases there is a liability every now and then to attacks of inflammation of the testicle. As the irritation at the posterior part of the urethra subsides or improves under appropriate treatment, the irritation and discharge, &c. at the orifice cease. The disordered state of the posterior part of the urethra being in the vicinity of the veru-montanum and mouths of the vasa deferentia, swelling of the testicle, so frequently attending these cases, is

accounted for by the continuity of the mucous membrane of the urethra with that of the ducts. Mr. Hunter mentions cases in which, from sympathy with the cutting of a tooth, all the symptoms of a gonorrhœa were produced. This happened several times in one patient. Children, indeed, are subject during dentition to a discharge from the genitals.

The endless and ever-varying changes of the urinary secretion which take place in certain morbid states of the constitution—gout, rheumatism, gravel, chronic dyspepsia, &c.—are conditions which, it must be borne in mind, exert more or less influence in producing irritation of the lining membrane of the urethra. The appearance in the urine of uric acid and urates, oxalates and ammonia, which occurs in the affections above mentioned, may be accompanied by much distress and irritation of the urinary passages, with puriform discharge. In these cases, we are too apt to look at the local disturbances alone as the disease, whereas they ought rather to be considered as symptoms expressive of the general disordered state of the system.

The gouty form of discharge may be produced by very slight excitement, is troublesome and protracted, and frequently attended with derangement at the neck of the bladder. If this form of discharge be treated as gonorrhœa, specifically, the local distress is increased, without any diminution of the discharge. These cases are liable to relapses. In a

case I am at present attending, there is profuse urethral discharge, with a large crop of herpetic vesicles on the outside of the prepuce. The gentleman had been suffering for some time from flatulency and acidity of the stomach, and unusual nervous irritability. The discharge, in this instance, is unmistakeably of gouty character. He is married, and of unquestionable veracity. This case might, in a general way, be looked on as gonorrhœal.

In certain affections of the spinal cord, the secretion of urine is morbidly altered; whilst, in consequence of paralysis of the bladder, it cannot be evacuated without instrumental assistance. In such cases, there is congestion of the mucous membrane of the urethra, with puro-mucous discharge.

Some of the forms of diabetes are attended with urethral discomfort, with now and then a puro-cous discharge. Piles and habitual costiveness, suppression of discharges elsewhere, cure of old eruptions, and injuries of the penis, may also give rise to discharge from the urethra.

Again, certain medicinal substances, it is well known, exert an irritating action on the urethra, and excite discharges. Terebinthinate medicines, the gum resin guiacum, &c. have this effect. Besides these, certain articles of diet, also, if indulged in freely, now and then occasion much irritation of the urinary organs, ardor urinæ, &c. attended with more or less puriform discharge, resembling gonorrhœa. For instance:—A medical practitioner, thirty-four

years of age, some twenty-four hours after eating largely of asparagus (about forty heads of young, green asparagus), experienced heat and burning pain along the whole track of the urethra, attended with frequent micturition, chordee, sympathetic fever, &c. On examination of the parts, the lips of the urethra were observed to be much swollen. The urine was high-coloured, scanty, and strongly impregnated with the odour of asparagine. In thirty-six hours, a moderate puriform discharge from the urethra set in, having all the appearance of gonorrhœa. Under appropriate soothing treatment, the symptoms subsided in five days. Those who drink largely of fermented liquors are not unfrequently troubled with urethral discharge. Bavarian beer especially is said to produce this effect; cayenne pepper also.

The history of the case, its antecedents and concomitants, will suggest its true nature to the practitioner who bears in mind, as every practitioner ought to do, that discharges from the urethra are not always owing to a specific venereal cause.

CHAPTER XIII.

NON-IDENTITY OF THE SYPHILITIC AND GONORRHŒAL VIRUS.

The question was at one time much agitated—and indeed still is—whether syphilitic sores and gonorrhœa arise from the same poison. The frequent co-existence of the two affections, the contraction of chancre from a person apparently affected with gonorrhœa only, and the production of a puro-mucous discharge, by connection with a person affected with chancres only, appeared at first sight to favour the supposition that chancre and gonorrhœa are merely different manifestations of the same disease. With this view of the relations of these local affections, the conclusion was natural that secondary symptoms might supervene on gonorrhœa as well as on chancre—a conclusion, in apparent support of which cases have not been wanting. A little consideration, however, shews that it is no wonder that among people having promiscuous sexual intercourse, syphilis and gonorrhœa should often co-exist, and that, according to circumstances, one man may contract syphilis, another gonorrhœa, and a third both syphilis and gonorrhœa from the same woman, and *vice versâ*.

It also shews that when gonorrhœal matter appears to communicate chancre, it may be, in reality, mixed with the matter derived from a concealed sore. It moreover shews that puro-mucous discharge, arising from connection with a person affected with chancres only, may not be a true gonorrhœa, but may be owing either to simple inflammation of the mucous membrane of the urethra or vagina, or to inflammation of the mucous membrane accompanying a chancre seated within the canal, and therefore unnoticed.

To test the question more exactly whether syphilitic sores and gonorrhœa arise from the same virus, inoculation was long ago had recourse to. Mr. John Hunter, who believed in the identity of the virus of syphilis and gonorrhœa, founded his belief on the one experiment which he performed of inoculating a healthy penis with gonorrhœal matter, and of which the result, he says, was chancres soon followed by buboes and unmistakeable secondary symptoms. A contrary result has been obtained from inoculation by others. Thus Mr. Benjamin Bell mentions the case of a gentleman who inoculated his prepuce and glans with gonorrhœal matter taken from another person, but without effect, and who then inserted chancrous matter into his urethra: this produced chancre, which was followed by bubo and secondary symptoms. Mr. Evans also tried inoculation with gonorrhœal matter, but it, in every case, failed. Hernandes inoculated persons with

gonorrhœal matter, and ulcers resulted; but these ulcers proved not to be of a syphilitic character. Dr. Tongue, of Philadelphia—to mention another example—inoculated with gonorrhœal matter without result, but succeeded in producing sores with syphilitic matter. The matter used seemed to have been derived, not from the person inoculated, but from another.

More recently, inoculation by the lancet with the matter of a gonorrhœa or of a true chancre on the body of an individual affected therewith, has been practised and held up by Ricord and his followers as the means, *par excellence*, of demonstrating the difference in nature between gonorrhœa and syphilis. The state of the case appears to be this:—Though gonorrhœa is communicable as gonorrhœa from one mucous membrane to another in the same individual —from the mucous membrane of the urethra to the conjunctiva of the eye, for example, gonorrhœal matter, when inoculated by the lancet, does not excite the characteristic pustule of syphilis. As we have seen that no pustule follows inoculation with the matter of syphilis on the patient's own body, any more than with the matter of gonorrhœa, there is thus no distinction so far as regards inoculation by the lancet on the patient himself, between the matter of gonorrhœa and that of syphilis*. It is

* The sores sometimes met with on adjacent parts, in consequence of prolonged contact of the discharge, in cases of gonorrhœa accompanied by chancre, are probably due to inoculation taking place under the conditions pointed out by Mr. Henry Lee, and referred to in the note, Chapter IV., p. 45.

different, however, when inoculation is practised on a second, and him a healthy individual. In this case, inoculation by the lancet with gonorrhœal matter is still *not* followed by the characteristic pustule, but inoculation by the lancet with the matter of the syphilitic chancre produces, as we have before seen, the characteristic pustule.

Notwithstanding the multiplied experience of Ricord and his followers, in disproof of the doctrine of the identity of syphilis and gonorrhœa, there are still those who maintain that chancre, bubo, gonorrhœa, vegetations, balanitis, mucous tubercles —are all capable of being engendered from and of engendering each other; that all may be the effect of constitutional syphilis, and that all may reciprocally become the cause of it. And, consistently with this doctrine, they shape their practice, giving mercury for every symptom caught by sexual intercourse without exception, as a possible preventive of syphilitic infection. A vital point of practice being thus involved in these different opinions, I think it necessary to enter into the examination of the question somewhat further in detail.

Against the validity of Hunter's single experiment, the objection might be urged that the gonorrhœal matter employed for the inoculation may have been mixed with chancrous matter, derived from a chancre within the urethra, with which the person from whom the gonorrhœal matter was taken may have been at the same time affected. Hunter, himself,

elsewhere admits the possibility of the existence of concealed chancres, both in the male and female. In Ricord's numerous experiments the punctures were like simple wounds. And in the few cases in which chancre supervened, it was found that the gonorrhœal matter had been mixed with chancrous matter. When a man, apparently with gonorrhœa merely, gives a woman chancre, the man's urethra, Ricord, therefore inferred, is the seat of chancre. In like manner we may infer the existence of chancre of the neck of the uterus, if a woman with vaginal discharge gives a man chancre. Such cases, however, of concealed chancre, combined with discharge, are rare. M. Lafont Gouzy found that of three hundred and eighty cases of gonorrhœa from which matter was taken and inoculated, the chancrous pustule was produced from two only. Secondary symptoms, arising from what appears to be merely a gonorrhœa are, moreover, of rare occurrence,—in the ratio, according to Hunter, of not more than one case to one hundred cases of secondary symptoms, of which the supervention on chancre was evident. In four thousand six hundred and ninety-two cases of secondary symptoms, Ricord found chancre in all, but in six hundred and eighty-one of the cases there was gonorrhœa along with chancre.

The glans and prepuce, we have seen, are a common seat of chancre, and the chancre may be accompanied by inflammation of their investing mucous membrane, with puro-mucous discharge.

Such a case we might call syphilitic balanitis or balano-posthitis. But ordinary balanitis, or balano-posthitis, we have seen, is simple glando-preputial gonorrhœa, or the common puriform inflammation of the mucous membrane of the glans and prepuce, which is quite free from any syphilitic admixture, leading neither to primary sore nor secondary symptoms. Though a chancre may supervene on balanitis, it is from a separate specific syphilitic infection.

Co-existing gonorrhœa and chancre.—Cases of urethral discharge, we have seen, occur, which begin in the same manner as ordinary gonorrhœa, and, so far, run a similar course. Sooner or later, however, a small ulcer appears on the margin of the lip of the urethra, which spreads from day to day, until it surrounds the entire meatus. The ulcer thus formed possesses all the characters of the true syphilitic chancre, and is very frequently followed by secondary symptoms. In these cases, if there be any difference as to the time at which the secondary symptoms manifest themselves, I think I have noticed that they appear rather earlier than in the ordinary cases of chancre. It might, therefore, seem that there are special syphilitic gonorrhœas, the secreted matter of which is of a different character from the usual gonorrhœal discharge, in so far that it appears to possess the power of producing chancre. The matter in these cases, lying in contact with the orifice of the urethra—abraded, it may be—appears to inoculate the part. In the

instances referred to, the gonorrhœa has generally existed some time before the ulcer commences at the orifice of the urethra. Considering this, and keeping in mind that gonorrhœa manifests itself in two or three days after the impure connection, but chancre not for two or three weeks, it is more probable that, in these cases, the patient received the virus of both gonorrhœa and syphilis at the same time,—each of which, in due course, produced its specific effects,—than that he received the virus of gonorrhœa only—and that, too, a gonorrhœa, the matter of which is capable of inducing chancres. The sore at the orifice of the urethra, in the cases under notice, is very characteristic, and I know of no sore for which I so unhesitatingly and immediately pronounce the necessity of mercury, provided there be no special or peculiar constitutional reason against its use. The sore, with its accompanying thickening, almost invariably yields to mercury.

As before stated, constitutional contamination is very early declared in these cases,—not unfrequently the secondary eruption shewing itself within a period of seven or eight weeks from the commencement of the gonorrhœa. I have seen cases in which the eruption was well pronounced at the end of the seventh week from the beginning of the discharge. In the following case, the sores which supervened on the urethral discharge were not so characteristic as the sore at the orifice of the urethra above

described, and, therefore, no mercury was given. In a young man aged twenty, affected with gonorrhœa, which, after some time, was doing well, the whole of the dorsum of the glans penis became studded with small pustules, which soon ran into well-defined circular sores. No mercury was given; local treatment only was employed. The patient afterwards suffered much from constitutional symptoms — eruption, &c. — and a severe attack of gonorrhœal rheumatism.

CHAPTER XIV.

BUBOES.

Buboes are inflammatory swellings of the lymphatic glands of the groin.

SUPPURATING BUBO ATTENDING SIMPLE CHANCRE*.

The form to which I wish first to direct attention is that which occurs in simple chancre. The inflammation in this case is of an acute character. The affected gland, which is very painful, is at first moveable, but, as it enlarges, ceases to be so in consequence of the implication of the surrounding cellular tissue in the inflammation and swelling. Suppuration commonly takes place, do what we may to promote resolution. The matter of the abscess makes its way to the surface, often very rapidly, though occasionally slowly, and is evacuated by ulceration, if not previously opened with the lancet. In either case, the sore which results assumes a chancrous aspect. Indeed, it may be viewed as a large simple chancre; the pus it gives out possessing the same contagious qualities as the

* Virulent bubo, non-syphilitic bubo.

sore on the genitals on which the bubo has supervened, being capable, by inoculation, of communicating a similar sore. Although the deep glands of the groin may be inflamed and swollen, it is usually only one of the superficial glands which suppurates.

The bubo now described is believed to be owing to an actual absorption of the virus from the simple chancres on the genital organs, by the lymphatics, and its transmission by these vessels to the glands. Hence it has been named *bubo* by *absorption*. It does not occur in every case of simple chancre; but of ten cases, perhaps, it will occur in three or four only.

Though this bubo be of such an acute character, it is satisfactory to be able to assure the patient that it does not forbode secondary symptoms. Timely cauterization of the simple chancre prevents the occurrence of bubo.

INDURATED OR TRUE SYPHILITIC BUBO.

The next form of bubo I have to speak of is that which accompanies indurated or true syphilitic chancre. In this case, the swelling is of an indolent character, and attended by little local inconvenience. The affected glands, still moveable under the skin, are not much swollen—not larger than twice their natural size—but very hard. The induration, which is characteristic, may continue for months. Suppuration seldom takes place,—not once in a *hundred* times,—and when it does, it is

in consequence of acute inflammation, excited by some accidental external cause. The pus is not inoculable. Though of so mild a character, as not to confine the patient, this bubo forebodes constitutional symptoms. Besides the affection of the glands, there may be inflammation in the course of the lymphatic vessels, between the genital organs and the groin, characterised by a cordy hardness along the dorsum of the penis, and the formation, sometimes, of a chain of small abscesses. This indurated, cord-like thickening of the lymphatics, which can be distinctly felt by nipping up the skin between the finger and thumb, is principally met with in cases of true syphilitic chancre, especially if accompanied by inflammation. When I have observed this cord-like thickening running along the dorsum of the penis, the cases have almost invariably been followed by secondary symptoms in one form or other, and that even although mercury may have been given in a full and sustained course.

BUBOES UNACCOMPANIED BY ANY SORE ON THE GENITALS, AND NOT FOLLOWED BY SECONDARY SYMPTOMS.

Buboes sometimes appear after promiscuous sexual intercourse, without preceding or accompanying primary sores, and without being followed by secondary symptoms. These buboes commence about three weeks after the suspicious connection with premonitory febrile symptoms. They are indolent in com-

parison with buboes following simple chancre, but more acute than those following indurated chancre. The swelling, which is rather painful, increases slowly, but without much redness of the skin or implication of the cellular tissue, except when suppuration threatens, which is common. If suppuration does actually take place, the sore left by the opening of the abscess does not become chancrous, nor is the pus inoculable as in the case of bubo from simple chancres.

It is not easy to account for the origin of the kind of bubo under notice. According to one opinion the bubo may result from the absorption of syphilitic matter and its actual transport to the gland by the lymphatics; the absorbing surface being, from the first, unbroken, and continuing so. The circumstances, however, that the bubo does not become chancrous when it suppurates, and is not followed by constitutional infection, would appear to shew that it cannot be owing to the absorption of the matter either of simple or of indurated chancres. Ricord thinks that the bubo is owing merely to the irritation and excitement of the coitus, but against this view it is urged, that cutting and cauterizing operations on the penis are not followed by any such result. In certain states of the system, however, it is to be observed, mere abrasion of the epithelium of the glans penis might be followed by an effect which an apparently more severe wound would fail to produce. In illustration

of this, we may mention, that a slight abrasion of the epithelium of the cornea is sometimes followed by destructive inflammation of the eyeball, whilst little reaction may follow an incision or cauterization of the cornea.

In the cases of simple non-specific sores, above referred to at page 74, enlargement of the inguinal glands may take place, and, in peculiar states of the system, even go on to suppuration.

SYMPATHETIC BUBO ATTENDING GONORRHŒA.

In acute gonorrhœa and in balanitis, there is generally some swelling of the inguinal glands, with pain on pressure. The affected glands remain moveable, and separate in the still loose cellular tissue. There is no tendency to suppuration, but at the end of a week or ten days resolution takes place, the glands returning to their natural size, and becoming free from pain. This swelling of the inguinal glands is named *sympathetic bubo*, being considered a reflex of the inflammatory irritation from the genital organs.

We thus see that, as well observed by M. Diday*, each primary venereal affection of the genitals has its distinct representative in the groin, so that, in many cases, the methodical examination of this

* Exposition Critique et Pratique, etc. *ut supra*.

region will indicate to us the state of the penis, the vulva, the uterus, and, what ought not to be overlooked in our exploration, the anus. In short, *suppurating bubo* points to *simple chancres* of the genitals or anus. *Indurated bubo* to *true syphilitic chancre* of the same parts. *Simple painful swelling* in the groin to *gonorrhœa* or *balanitis*.

CHAPTER XV.

PROGNOSIS IN SYPHILIS.

Primary sores may heal and the recovery be complete without the supervention of secondary symptoms. Some local injury may, however, be left by the ulceration. After the healing of a chancre there may remain a tendency to the development of condylomata, herpes preputialis, &c. When constitutional infection has taken place, the recovery can never be calculated on as perfect in every respect. Even in the most favourable cases there is fear of some prejudicial influence on the children, and also, as we have seen, on the previously healthy mother, from the father, through the fœtus. In no case can the patient be assured against the possibility of a new outbreak of some symptoms. Frequently the constitution is broken up and premature old age ensues. In malignant cases, death may be the result.

It not unfrequently happens that the real nature of some secondary syphilitic affection remains unsuspected. On the other hand, many cases are mistaken for syphilitic which are not so, but which really depend merely upon scrofula, faulty nutrition,

and other disordered states of the system, wholly unconnected with any venereal taint.

To obviate the first error, the practitioner ought always to keep in mind that a relapse may take place long after the patient was supposed to be cured, and that a relapse is unattended by that regularity in the succession of symptoms which characterises a recent infection.

In regard to the second error: let the practitioner be ready to suspect, but let him, at the same time, be scrupulously reserved in giving expression to his suspicion. In every doubtful case, he ought to consider well the characters of the particular affection before him—its origin and progress—its antecedents and concomitants—before he ventures on a diagnosis.

Speaking of suspected venereal affections, it is to be observed that we ought to be prepared to meet the ungrounded fears of syphilitic infection entertained by nervous susceptible persons. Such fears sometimes compromise the peace and happiness of families; the idea of the system being poisoned, once rooted in the mind, particularly of females, it is difficult to dispel. Some persons, who may have had at any time of their life a trivial excoriation, or discharge, are prone to fancy every slight cutaneous eruption, or sore throat, or urethral irritation, which may occur subsequently, to be the result of venereal infection: in fact, they become haunted by the one idea of syphilis. And, in such cases, the medical man, allowing himself, perhaps, too easily

to be misled by the representations of his patient, may adopt a treatment for the supposed venereal complaint which cannot but be injurious.

Having, by careful investigation, satisfied ourselves of the absence of any venereal affection, we ought, under these circumstances, to endeavour to dispel the deep-rooted hallucination which harasses the patient and renders his life miserable. The one idea of syphilis, it is proper, however, to observe, is often a symptom of the irritable weakness of the brain, which sometimes occurs as one of the remote consequences of constitutional syphilis.

This *Syphilidophobia* may be accompanied by local neuralgia, cramps, muscular trembling, paralysis and weakness of the senses. Eventually the most violent hypochondria, ending in actual madness and fatuity, may supervene.

End of Part I.

THE

PATHOLOGY AND TREATMENT

OF

VENEREAL DISEASES.

PART II.

TREATMENT.

CHAPTER I.

GENERAL REMARKS ON THE TREATMENT OF SYPHILIS.

EMPLOYMENT OF MERCURY.

It is no observation of modern date, for it was insisted on by intelligent writers long ago, that by attention to diet and regimen the symptoms of syphilis will subside without the use of mercury, especially when the disease is of a mild and benign character. Even in the severe and malignant forms, syphilis may be cured by rest, low diet, and regulated temperature, aided by sarsaparilla, guaiac, warm baths, &c. But as under this non-mercurial treatment, the cure proceeds slowly, whilst, under mercurial treatment the disease, especially in its earlier stages, is cured with greater certainty and

rapidity, it is much better to give mercury, provided the patient's constitution has not been already undermined by previous, perhaps, ill-regulated courses of that medicine, or is such as to forbid its use altogether.

Mercury when prescribed with judgment is very beneficial, but it ought always to be considered a great responsibility to subject a patient to its influence. Never allow yourself, therefore, to give the medicine prematurely. Persons having the germs of phthisis and scrofula are much injured by its improper use. In ordering mercury, therefore, it must, we repeat, be borne in mind that in persons of the constitutional disposition referred to, its unnecessary or injudicious administration in any form is liable to hurry on these diseases into destructive action. In some cases of syphilitic sores, occurring in young men of strumous habit, and who have, moreover, injured a naturally delicate constitution by dissipation and irregularities, it is, perhaps, better to lay aside the use of mercury altogether. By improving the constitutional powers, &c. you must manage to do the best you can with the primary sore, and leave the rest to nature. There is a chance of the patient escaping constitutional infection; yet, should secondary symptoms in these cases supervene, they will generally yield to the judicious employment of a combined tonic and alterative plan of treatment, with regulation of the diet and regimen.

In cachectic and old worn-out persons affected with syphilis, and in those already injured by ill-conducted mercurial courses, a mild, nourishing diet is the first thing to be ordered; and, if symptoms do not press, sarsaparilla, steel, quinine, and cod-liver oil are the medicines we may choose from. If, on the contrary, the symptoms are threatening, we must recur cautiously to mercury, according to the circumstances of the case.

Diabetic patients are very susceptible of the action of mercury, even in the smallest doses.

While thus fully alive to the injurious effects of mercury, when pushed too far, in any case, and when given in some particular constitutions, I yet confess I should, indeed, be sorry to be deprived of its assistance in the treatment of syphilitic diseases. I am no advocate of the non-mercurial system. Though any venereal sore may heal without mercury, yet the great advantage gained by the judicious administration of this medicine is so frequently made manifest by the improvement in the condition of the primary sore, followed by its rapid cicatrization, that we consider it unwise in many cases to dispense with it. It cannot, however, be too often repeated, that in certain constitutions a degree of restraint ought always to be observed before prescribing a mercurial course.

It is the disastrous results of the abuse of mercury which have raised up so much prejudice against it, and led to the opposite extreme in practice, fol-

lowed by the non-mercurialists. The well-regulated and well-watched exhibition of mercury is not attended by any danger; whilst secondary symptoms are on the whole more frequent when primary sores of the true syphilitic character are indiscriminately treated without it. Still, it is to be remembered that even a mercurial medication does not secure against relapses, though, when such take place, they are usually of a benign character and yield to mild expectant treatment. Of course, if diet and regimen, aided by warm baths, sarsaparilla, guaiac, &c. alone be calculated to effect a cure, they must be of great importance in assisting the operation of mercury, when it is judged necessary to have recourse to that agent.

Mercury, then, if used sparingly and with discrimination is a perfectly safe remedy, and is to a certain extent sure in its effects, and may in most cases be relied on.

In giving mercury, the great point is to keep up its action on the system decidedly, but moderately, for a period of five or six weeks. Short courses do more harm than good; the poisonous effects of the mineral are produced without any compensating benefit. In those cases in which mercury has been withheld for the primary sore, the good effects of the remedy given in moderate doses are frequently derived in the secondary stage.

M. Diday says that mercury given in the chancrous stage has a retarding, though not a preventive

influence on the appearance of secondary symptoms. He recommends that no mercury be given in the chancrous stage. And in the great majority of cases, he even abstains from mercury in the secondary stage. The different stages of constitutional syphilis, according to him, each require a different remedy:—viz. *Secondary* symptoms require mercury in the ordinary form. *Transition* symptoms require the iodide of mercury. *Tertiary* symptoms require the iodide of potassium. According to the efficacy of iodine, indeed, in subduing a given symptom, he infers that symptom to be *tertiary*.

Induration around the sore considered as an indication for the employment of mercury.—The simplest non-venereal sore, we have seen, may be surrounded by induration—any sore, in fact, may. Induration is commonly connected with the syphilitic nature of the sore, though certainly far from always. Were we to give mercury for every sore with surrounding induration, we should, indeed, frequently be prescribing the medicine unnecessarily. In strumous subjects there often is induration around the sore. Such cases are but too frequently made worse by the injudicious administration of mercury. Yet there is no doubt that under its influence the hardness around a true chancre is discussed. This is owing to the subsidence of the inflammatory congestion paving the way for the absorption of the lymph exuded into the surrounding texture, on which the induration depends. A phimosed pre-

puce becomes relaxed on a similar principle. At the same time that inflammatory congestion subsides, and exuded lymph is absorbed, the sore heals. It being always a great point to get every primary sore healed as speedily as possible, there can be no doubt as to the propriety, in many cases, of impressing the system with mercury, to promote that object. The only difficulty is the proper and judicious selection of the cases in which the medicine is essentially necessary. In simple chancre it is uncalled for.

Mode of bringing the system under the influence of mercury.—When our purpose is to impress the system with mercury, the way by which the medicine is introduced is, so far as regards our ultimate object, immaterial. The most ordinary and convenient way is by the stomach; but the idiosyncrasy of patients is often such that the internal administration of mercury cannot be borne, even in the smallest doses, on account of the general disturbance of the whole system, or irritation of the mucous membrane of the bowels which it occasions. In such cases it is necessary to have recourse to its introduction through the skin, either by inunction with mercurial ointment, or fumigation with the vapour of the bisulphuret of mercury. By the endermic method, the system may be rapidly brought under a mild mercurial action, which may be kept up without inducing irritation of internal organs.

Internal administration of mercury.—The forms in

which mercury is most commonly given internally, in order to impress the system are,—hydrargyrum c. cretâ, blue pill, and calomel. The bichloride, the iodide and biniodide of mercury are also very valuable forms. The grey powder, or blue pill in the dose of three or five grains, combined with a quarter of a grain of opium, is to be given two or three times a day until the gums are touched. During the course the patient must be watched from day to day, as not unfrequently the medicine accumulates in the system, and very severe salivation comes on suddenly. In this case the further use of the medicine should be suspended. If no such violent action take place, but the gums merely become tender, the medicine should be continued in less frequent doses, twice a day or once a day only, so as to keep up its influence moderately on the system for some time, or it may be omitted for a day or so and then resumed.

During a mercurial course it is necessary to avoid acids, fruits, &c. and the patient should be warned as to the possibility of articles of gold, worn at the time, becoming coated with a film of mercury.

Though salivation, when it comes on, causes great distress at the time, it is often followed by a beneficial effect, especially if the disease has been of long standing, and the symptoms severe and refractory. Still, it is proper to observe that salivation and affection of the gums by mercury are no necessary criteria of its action. The system may be

under the influence of the medicine without the gums being touched at all.

Calomel, though so very valuable a mercurial in other respects, is not considered so anti-syphilitic as other preparations. Its common dose is one grain, combined with a quarter of a grain of opium, three times a day, or in the form of Plummer's pill. The bichloride of mercury is considered more efficacious as an anti-syphilitic, as is also the biniodide of mercury. They are given in the dose of one-twentieth, or one-sixteenth, or one-eighth of a grain, three times a day. The liquor hydrargyri bichloridi of the Pharmacopœia contains one-sixteenth of a grain in a dram. The biniodide of mercury may be also given in solution, thus—

℞ Hydrargyri biniodidi gr. i.
Potassii iodidi ℈ j.
Aquæ puræ ℥ ii.
Solve.

One dram of this contains one-sixteenth of a grain. The iodide of mercury is given in the same dose as calomel, in the form of pill.

External administration of mercury.—a. Inunction with mercurial ointment.—From half a dram to two drams of the stronger mercurial ointment are to be rubbed in every night, or every other night, until the gums are affected and there is some salivation. The inside of the thighs, or arms, or the axilla, where the skin is thin and delicate, is the place

usually chosen for the inunction, which is to be continued until all the ointment is taken up. As soon as moderate salivation and affection of the gums have been induced, the frictions are to be repeated less frequently. In some cases, in which I have wished to keep up a gentle mercurial action in delicate constitutions (in which, indeed, I felt that I could not get on without it) I have directed the patient to wear a knee-cap smeared with camphorated mercurial ointment. From this, I have obtained the happiest results and that not only without any confinement, but even without interfering with the patient's occupation, exercise, or amusements.

b. Mercurial fumigation.—When the fumes of the bisulphuret of mercury come into contact with the surface of the body, the medicine is absorbed and the system is brought under mercurial action. There are special fumigating apparatuses made. A simple arrangement is to seat the patient wrapped in a blanket on a low open-bottomed chair underneath which a heated iron plate is placed with half a dram of the bisulphuret sprinkled thereon. Mercurial fumes in combination with steam have been much recommended by Mr. Langston Parker of Birmingham*. He directs them to be applied in the following manner :—Under the open-bottomed chair on which the patient sits, are placed a copper bath

* The Modern Treatment of Syphilitic Diseases. *London*, 1854.

containing water, and a metal plate on which is put from one to three drams of the bisulphuret of mercury, or the same quantity of the grey oxide. Under each of these is set a spirit lamp. The patient is, by this means, exposed to the influence of three agents, heated air, common steam, and the vapour of mercury, which is thus applied moist to the whole surface of the body. By the end of twenty minutes, the patient is in a state of great perspiration, whereupon the lamps are to be removed and the temperature allowed gradually to sink. When the patient has become cool, the coverings are to be removed, and the body rubbed dry. Mr. P. also uses the iodide of mercury, but in smaller quantities, for example, from five grains to half a dram. It may be combined with the bisulphuret in the proportion of a scruple to one or two drams of the latter.

In early childhood the susceptibility to the action of mercury is slight. Among adults, a great difference is to be remarked in regard to the readiness and violence with which mercury acts on the system. In some persons a very small quantity occasions a strong action, whilst in others the system cannot be brought under the influence of the medicine at all. Redness and swelling of the gums, more or less profuse salivation, with swelling and pain of the salivary glands, painful ulceration of the fauces and mucous membrane of the mouth, inflammation, swelling, and ulceration of the tongue, loosening of the teeth, and sometimes periostitis,

caries, and necrosis of the alveolar processes—such are the indications of excessive mercurial action in the region of the mouth. The nostrils may also present indications in ulceration of the olfactory membrane and affection of the bones. Periostitis, caries, and necrosis of other bones besides those of the mouth and nose, are liable to occur. The skin suffers, especially from a form of eczema, which ends in desquamation of the cuticle, along with the crusts which resulted from the dried matter of the burst vesicles, and sometimes loss of the hair and nails. Mercurial eczema is preceded and accompanied by fever and general disorder of the system. Excessive mercurial action causes great disturbance of the digestive organs, in the form of vomiting, colic, diarrhœa, &c. The general implication of the nutritive functions is manifested by *mercurial cachexy*, and the general implication of the nervous system by *mercurial erethism*. In this latter state death is sometimes unexpectedly occasioned by a sudden exertion.

Persons whose occupation exposes them to the action of mercurial vapours, are liable to mercurial cachexy and erethism, as well as the local symptoms above enumerated.

From this account of the poisonous action of mercury we can understand how that the excessive and indiscriminate use of the medicine, which formerly prevailed in the treatment not only of syphilis, but also of gonorrhœa, did more ill than

the disease itself—occasioning, in fact, many of the disastrous effects which were attributed to the malignancy of the disease.

EMPLOYMENT OF THE IODIDE OF POTASSIUM.

The iodide of potassium is an invaluable medicine, especially in the later stages of syphilis. It clears the system of the mercury that may have been previously given, causing its excretion by the urine, and with the auxiliary tonics—sarsaparilla, change of air, sea-bathing, &c.—enables us to manage most cases of the disease. If we have been giving mercury for the purpose of promoting the discussion of induration or thickening, we must not, until our purpose is effected, substitute the iodide of potassium under the idea that it will continue to promote the same object. The contrary is the case; the iodide, by causing the excretion of the mercury, checks the further action of the latter.

What I have stated with regard to the bad effects of mercury upon the constitution is also applicable to the iodide of potassium. Besides catarrhal symptoms, coryza, &c. a low, feverish, depressed state of the system is occasioned, with palpitation of the heart and intermission of the pulse by the large and uncalled-for doses of this salt.

Three grains three times a day in decoction of sarsa, is a fair dose to begin with; and if along with it we give the steel wine of the old Pharma-

copœia, the remedy will be borne by the patient for a lengthened period.

Iodide of sodium may be substituted when the iodide of potassium does not agree. It is given in somewhat larger doses, up to ten grains three times a day.

In syphilitic affections of the bones and ligaments, the anguish and racking pain occasioned by the inflammatory action in these unyielding structures is almost to a certainty, and within a given time, relieved by well-directed and sustained doses of the iodide of potassium, with or without sarsaparilla. I generally combine the salt with bark, sarsa, taraxacum, liquor potassæ, &c. according to the indications present. In such cases the strength is generally depressed below par, and broken down or impaired by pain.

EMPLOYMENT OF THE CHLORATE OF POTASS.

In some cases of secondary syphilitic ulcerations of the throat, &c. in which the constitution is much broken up, the ulcerative process is frequently checked by the free administration of the chlorate of potass, in doses of ten to twenty grains, with sarsaparilla, and improvement goes on rapidly. The chlorate of potass has been supposed to impart oxygen to the blood. However this may be, it seems to put the system into a more favourable condition for the operation of mercury, for after a course of chlorate of potass, smaller doses of the

medicine tell with better effect. The bichloride of mercury is the best form to give after a course of the chlorate of potass. Chlorinated soda forms a very useful gargle in cases of mercurial salivation, with ulceration of the mouth. Half an ounce or an ounce of the solution of chlorinated soda is to be mixed with half a pint of water for this purpose. The chlorate of potass may be used in the form of lozenges.

EMPLOYMENT OF OPIUM.

Opium is a remedy of great value in the treatment of syphilis. We frequently see sores, which have become painful, irritable, and spreading from the abuse of mercury, improve under the influence of opium. In phagedena the utility of opium is decidedly manifested. In syphilitic cachexia also it is very useful. To counteract its constipating effects it may be combined with some mild aperient; it is, however, occasionally found that the medicine itself proves laxative instead of constipating.

As to the form in which opium should be exhibited internally, there is none better than the old fashioned pilula saponis c. opio in doses of three or five grains, every four or six hours.

Externally, an aqueous solution of opium is a beneficial application to irritable sores, or after the application of caustic, Combined with black wash, it is especially valuable in cases of foul irritable ulcers.

In the syphilitic affections of particular organs, special modes of treatment may be required irrespective of the syphilitic nature of the affection. For example, in syphilitic iritis, the special ordinary treatment for iritis must be had recourse to. If we give mercury, it is not so much because the inflammation is syphilitic, as because any iritis commonly requires the exhibition of mercury. If we do not think it advisable to give mercury we give turpentine, perhaps, just as we would do in a case of rheumatic iritis. See below, the separate chapters on the treatment of the syphilitic affections of particular organs.

CHAPTER II.

TREATMENT OF CHANCRES.

In the treatment of syphilis, the most important period of action is when the disease is in the primary stage. For it is alone by judicious management at that period, that the evils of the secondary effects of the poison can be warded off altogether, or at least lessened. Though by treatment, we may, in many instances, prevent secondary symptoms, or at least diminish the chance of their occurrence, the important fact ought always to be borne in mind, that there are some constitutions in which (let the treatment be what it may) secondary symptoms will supervene. We can never, therefore, hold out, with truth, a certain guarantee that there shall be immunity from constitutional disease. We must be satisfied with doing our best. In short, the great principles of treatment may be briefly summed up as follows:— Whatever the nature or character of the sore, it is desirable to get it healed as quickly as possible; for the longer it remains open, the greater will be the chance of the system becoming affected.

Cauterization of chancres.—Chancres, either true

or false, it is to be premised, are liable to slough, from excess of inflammatory action. If it be a true syphilitic chancre that sloughs, secondary symptoms may possibly not supervene. By the separation of all the poisoned tissue, a healthy, clean, granulating sore is left which heals pretty rapidly. The chancre then stands in the same relation that it would have done, had it been destroyed, in its early stage, by caustic. Though, among the cases of rapid sloughing of the glans, prepuce, and skin of the penis that I have seen, not a single instance of the supervention of secondary symptoms occurs to my recollection, I yet have no doubt that sloughing sores may, as well as cauterized sores, be followed by secondary symptoms—even though the death and sloughing of the poisoned tissues have taken place at a very early period.

Cauterization of chancres has commonly been practised, with the object of destroying the syphilitic virus before it could be absorbed into the system, and thereby preventing constitutional infection. It has, however, been found by experience that, in the case of true syphilitic chancre, cauterization cannot be depended on for that purpose. Though the sore heals, secondary symptoms frequently not the less supervene. In the case of simple contagious chancre, which is not followed by secondary symptoms, cauterization is, of course, not required to prevent them. Cauterization is, nevertheless, useful in the treatment of both kinds

of chancre, by promoting the healing process. To ensure this result, it is necessary that the caustic should penetrate deeper than the mere surface of the sore, in order to destroy entirely the poisoned structure. The chancre thus being reduced to the condition of a common sore or wound, heals as such. In the simple contagious chancre, destructive cauterization is especially useful before contamination of the lymphatics, by absorption into them of the virulent matter; for bubo, by absorption, is thereby prevented.

The frequency with which secondary symptoms supervene on the true syphilitic chancre,—even although it may have been destroyed by caustic at a very early period (a period so early, as to give promise of a successful result) and have healed rapidly and kindly after the separation of the eschar, without leaving any appreciable thickening,—is calculated to discourage us, after some experience in this department of practice, from having recourse to the cauterization of sores. Notwithstanding the uncertain results of cauterization in preventing secondary symptoms, however, I still deem it right to perform the operation, when I meet with a case at a sufficiently early period, and thus give my patient the chance of escape from secondary symptoms. And this I do upon the same principle that I would cut out and cauterize the bite of a dog, suspected of being rabid. At all events, nothing is lost, even although secondary symptoms should

supervene. The cauterization does no harm, but, on the contrary, promotes the healing of the sore; and, if the case should be one of simple contagious, instead of true syphilitic chancre—a point we cannot always determine beforehand—then destructive cauterization is especially useful, as above observed, in promoting the healing of the sore, and in preventing bubo. There is, therefore, no question as to the propriety of cauterization in any case. The simple contagious ulcers, to which the practice is applicable, are newly-formed accessible ones, unattended by bubo in suppuration, or inflammation of the lymphatic vessels. If a large surface be involved, then, of course, cauterization is inadmissible, as also when there are numerous small sores.

In cauterizing a chancre, the substance of the affected part should be destroyed to a considerable extent and depth. When the nitrate of silver is the caustic employed, the sore should be made dry, and the solid stick freely and effectually applied by stirring it round, or a small conical piece of the caustic may be inserted into the pustule or sore, and left there to dissolve. Other caustics are employed, of which the best is the chloride of zinc made into a paste, with an equal part of flour, by means of alcohol to mix them, or nitric acid and sulphur made into a paste. A paste made with two parts of sulphuric acid and six parts of powdered vegetable carbon has been of late used and recommended on the continent, under the name of *carbo-sulphuric* paste. When applied to a chancre, say a phagedenic chancre, the paste soon

dries and forms a black crust, which after several days falls off, leaving a clean sore, or even a healed surface. Tincture of iodine has also been recommended as a caustic application to phagedenic chancrous sores*.

After a chancre has been thus cauterized it is to be dressed with cotton wool or dry lint. The application, as an anodyne, of unguentum opii or u. belladonnæ is sometimes necessary. When the eschar has separated, the sore will require to be kept clean by frequent bathing with some lotion. Strong black wash, with opium, in general answers very well.

℞ Hydrarg. chloridi ℈ j.
Opii pulveris gr. iv.
Gummi Arab. mucilag. ʒ iij.
Aquæ calcis ʒ xiij.
Fiat lotio.

A solution of the bichloride of mercury with opium, is also a good lotion for the purpose.

℞ Hydrarg. bichlorid. gr. j.
Ammon. hydrochlorat. gr. iv.
Extract. opii gr. viij.
Aquæ puræ ℥ viij.
Solve. F. lotio.

* In several cases of that which we may, I suppose, call the malignant ulcer, about the alæ nasi, and other parts, I have succeeded beyond my most sanguine expectations with the nitric acid and sulphur paste. In one case the ulcer had existed upwards of three years, and after four or five applications healed up, and has remained so. After applying the paste, the sore was covered with lint, and sealed up with collodion.

Lead lotion with hydrocyanic acid is also to be recommended. In the interval, the sores may be dressed with belladonna ointment.

The insufficient application of caustic does harm. If sores be irritated by the trivial or vexatious application of caustic, the healing process is interfered with, and constitutional symptoms are more likely to follow. Whatever caustic be employed, we must endeavour, let it be repeated, to ensure the total destruction of the contaminated tissue.

Cauterization, not to the extent of destroying the sore, but merely for the purpose of repressing exuberant granulations is, however, occasionally called for. Some sores throw up warty granulations; other sores, more particularly ulcers on the penis, in which the skin is eaten through and the subjacent loose cellular tissue opened into, are particularly prone to throw up loose granulations. Under these circumstances, the process of cicatrization is interfered with. It is, therefore, necessary to bring down the granulations to a proper level by the vigorous application of the solid stick of nitrate of silver—whereupon the sore speedily closes in. When the granulations are not so very exuberant, it is sufficient to pencil the sore with blue stone, or with linimentum æruginis.

In cases of perforating, or tunnelling ulcer of the frenum, which is a tedious process, the cure may be expedited by passing a thread through the opening

in the frenum, and tying it tight. The ligature cuts through the frenum in a very short time. Burrowing sores, implicating the loose cellular tissue beneath the skin of the penis, extending sometimes as high up as the pubes, require to be freely opened.

During this treatment, rest and regulation of the diet must be enjoined, and laxatives prescribed. The existence of much inflammation of the part contraindicates cauterization until it have subsided. In this case, fomentations and poultices are to be employed. If inflammation comes on after cauterization, it must be actively met. When phimosis exists, preventing access to the sore, it may be necessary to slit up the prepuce.

The sore healing, or having healed, under the above treatment, the question arises as to the propriety of administering mercury—supposing the case one of true syphilitic chancre—in order to counteract the specific poison. We have seen that any simple sore may present more or less induration, especially in strumous subjects. Now, if in such a case, mercury be injudiciously given under the idea that the sore is a true syphilitic chancre, the probabilities are that matters will be made worse. Mercury must, therefore, be given with great caution; and, even when there is no doubt that the case is one of true syphilitic chancre, the course of mercury to which we may think it advisable to subject the patient, ought to be a very mild one.

I have frequently had occasion to observe that in members of strumous and consumptive families—brothers for example—sores of the genital organs present similar characters, being very indolent, and generally accompanied by considerable surrounding induration, such as would induce us to consider them as true chancres, did we admit induration alone as their characteristic. These are the cases and constitutions in which, as a general rule, mercury is inadmissible, or in which, if we venture on the medicine at all, it must be given in small doses, and very cautiously; taking care to sustain the power of the constitution by diet, sarsaparilla, change of air, &c.

In recent cases of chancre—attended by considerable thickening and induration of the prepuce, with constriction of the orifice of the latter—a course of mercury is especially useful in promoting the absorption of the lymph, the deposit of which in the cellular tissue is the cause of these morbid states.

CHAPTER III.

TREATMENT OF CONSTITUTIONAL SYMPTOMS.

SECONDARY SYMPTOMS.

It is useless tampering with these cases, for it must be borne in mind that mercury, in some form, must, sooner or later, be had recourse to. But before commencing the mercurial treatment, I believe it to be of the greatest advantage to prepare the blood for its reception. For this purpose, the chlorate of potash seems to me to possess especial value. I have found that, after the system has been fairly put under the influence of this salt—I may say, has been saturated with it—the syphilitic symptoms have yielded more satisfactorily and readily to small and sustained doses of the milder mercurial preparations—doses, indeed, much smaller than would have been required without the previous preparation of the blood by the chlorate of potash. In some cases the symptoms have yielded entirely under its influence, without even the intervention of mercury in any way; and, when mercury was required, the smallest possible doses sufficed. See p. 125.

Syphilitic roseola.—The fever ushering in this eruption may require antiphlogistic treatment. After this, a mild course of mercury, with the sudorific decoctions, is to be prescribed.

Scaly syphilitic eruption. — The scaly syphilitic eruption, in general, is not accompanied by symptoms calling for active antiphlogistic treatment. The system should be brought moderately under the influence of mercury, by means of the bichloride internally, or by inunction or fumigation.

Syphilitic papular eruption.—It is necessary to adopt antiphlogistic treatment at the commencement; and after the fever has abated, inunction or fumigation is to be had recourse to. By this external application of mercury, the irritation of the skin is relieved. Sponging the skin with a bichloride of mercury lotion (gr. ii. — ℥ viij.) is also useful.

Syphilitic pustular eruption.—A general impression should be made on the skin, by a warm bath every other day, whilst the system is brought mildly under the influence of mercury by the biniodide, given in doses of one-twentieth of a grain, three times a day, along with a sudorific decoction. If the crusts, left by the drying up of the impetiginous pustules, do not fall off, leaving the subjacent ulcers healed, warm-water dressings are to be applied, and, when they have come away, the sores left open are to be bathed with the black wash, or a nitrate-of-silver solution, gr. viij — ℥ ii. The pustular eruption does

not bear much mercury. If this medicine be pushed too far, there is danger of the eruption degenerating into one of ecthyma or rhupia, ending in spreading ulceration.

Syphilitic tubercles.—The iodide of mercury may be given in one-grain doses at night, or night and morning, with sarsaparilla several times a day. If there is local inflammation of the skin, cooling lotions are to be applied. Should ulceration of the tubercles take place, the ulcers are to be treated like other syphilitic sores of the skin.

Alopecia, or falling out of the hair.—A hair pommade, containing the iodide of mercury, or the white or red precipitate, may be used; but in *alopecia*, and also in *onychia*, or syphilitic disease of the matrix of the nails, the general alterative and tonic treatment is of most importance and efficacy.

Secondary ulcers of the skin.—Regulated diet; blue pill and opium; sarsaparilla; soothing applications to the sore, if irritable—stimulating applications, if indolent; afterwards, iodide of potassium—such are the remedies which recommend themselves.

Condylomata.—The system is to be brought under the influence of mercury, and a bichloride of mercury lotion applied locally. If there is much stench, the part should be occasionally washed with the liquor sodæ chlorinatæ, diluted with water —ʒ ss. —i to ʒ viij;—and, after that, the abraded surface dusted over with calomel, or pencilled with the nitrate of silver. As an application to paint

condylomatous sores with, a lotion, containing bichloride of mercury and hydrocyanic acid, with some astringent earthy powder, such as tutty, is sometimes useful. In the severer forms of condylomatous excrescences—where, indeed, there is hypertrophy, or altered structure of the skin, cases only met with in hospital practice—the morbid growth may be speedily removed by grasping it between the blades of the écraseur, excising it, and then applying the actual cautery.

Syphilitic sore throat.—A mercurial course is a necessary part of the treatment for excavated ulcer of the tonsils, unless specially contraindicated. In other cases, iodide of potassium recommends itself. In the simple abraded sore throat, the nitrate of silver solution— gr. x — xx — ʒ j— is to be applied every second or third day. Phagedenic ulcers of the throat require to be touched with nitric acid, the employment of which, however, must be managed with great caution. It is important to remember that ulcers may be so deeply seated that it may not be easy to detect them on a hasty examination*.

Syphilitic ulcers of the mouth and tongue. As mercury has in general been already exhibited in these

* Vascularity or turgescence of the throat and irritation of the mucous follicles of the tonsils are produced by smoking. Also sores upon the tongue. I have known cases of this sort treated as secondary symptoms. They get well on leaving off smoking. Many of these cases of supposed syphilis of the tongue are, I believe, kept up by smoking.

cases, the ulcers are often in part due to the action of that remedy, and not benefited by its further use. For treatment, it is best to give iodide of potassium and sarsaparilla internally, and to apply some astringent gargle locally. Opium when the sores are irritable is useful.

Syphilitic affections of the nose.—In the earlier stages, the iodide or biniodide of mercury is to be given internally, and the sniffing in of mercurial fumes or injection of black wash employed as a local application.

Syphilitic affections of the larynx.—These cases are not much amenable to treatment. Iodide of mercury may be tried if too much mercury have not already been given, in which case the iodide of potassium or the iodide of iron and cod liver oil are more likely to be of service.

TRANSITION SYMPTOMS.

Pustular eruptions mixed with tubercles and ecthymatous eruptions running into ulcers.—These affections usually occur as transition symptoms, and are to be treated with the iodide or biniodide of mercury, together with opium, internally; whilst externally, the black or yellow wash and other such lotions are to be applied to the ulcers.

Syphilitic iritis.—The treatment required is that which is applicable to iritis in general—bleeding, if necessary, and mercurialization—mercurialization, not so much because the disease is syphilitic, as

because mercurialization is for the most part necessary in every iritis. Belladonna, or atropia, is required to keep the pupil dilated. If mercury has been too much used already, the oil of turpentine may be tried instead, in ʒ ss. — ʒ j. doses, with milk, three times a day. The important fact above noticed, p. 124, and which, I believe, was first pointed out by Mr. Wharton Jones in his Catechism of the Medicine and Surgery of the Eye and Ear, is well exemplified in iritis: viz. that with large and damaging deposits of lymph—if the administration of mercury under which improvement was going on, be prematurely put a stop to, and the iodide of potassium substituted in its place—the effect will be to arrest the further absorption of the lymph. In fact, the lymph seems to be permanently or immovably fixed, for even when mercury is again had recourse to, absorption is not renewed.

Syphilitic deafness.—The iodide of mercury first, and then the iodide of potassium may be tried; but the cases, unless taken early, are frequently beyond cure. In the case of the young man affected with inflammation of the membrana tympani, corneitis and alopecia before mentioned, p. 26, the treatment consisted chiefly of the iodide of potassium and tonics. Under this, as already said, the opacity of the cornea slowly cleared off and the hair grew again, but the deafness became more confirmed.

Syphilitic sarcocele.—In the early stage, mercury is required; but in the fungous stage, iodide of

potassium is the remedy, under which the disease most quickly subides.

TERTIARY SYMPTOMS.

Syphilitic rhupia belongs to the group of tertiary symptoms and is to be treated by the iodide of potassium and sarsaparilla. It is but little under the influence of mercury.

In *tertiary syphilitic affections of the mouth*, the iodide of potassium and tonics, internally and astringent washes locally are to be prescribed.

In the *later stages of syphilitic disease of the nose*, with implication of the bones, iodide of potassium, sarsaparilla, tonics, and opium, are the general remedies indicated; whilst to cleanse the parts, lime-water, or a solution of chlorinated soda, is to be injected or sniffed up into the nostrils. Such cases are tedious and protracted, and require that the powers of the system be supported.

In *syphilitic ulceration of the eyelids*, iodide of potassium is to be given internally, and the nitrate of silver solution gr. iv — ℥ i, applied externally, not only to the ulcer, but also to the inflamed conjunctiva.

Syphilitic gummata.—Iodide of potassium is the remedy to be had recourse to in these tertiary symptoms.

Syphilitic nodes.—In these cases, mercury is not admissible. Iodide of potassium is to be given internally. Locally, blisters may be applied over

the nodes and dressed with mercurial ointment. When the nodes are very tender, it may be necessary first to apply leeches and use warm fomentations.

Pains in the bones occurring as a tertiary symptom.—A case which occurred twelve or fourteen years ago, of protracted, deep-seated pain in the tibia, with considerable swelling of the bone, ultimately yielded to mercury, the iodide of potassium, &c. Yet, at one period, while the patient was suffering from excessive pain, trephining the bone was held out (in consultation with Mr. Keate) as perhaps the only means of affording relief. The case, however, did well without any operation. I never before saw the combined effects of iodide of potassium and mercury better illustrated than in this, by the subsidence of the swelling and cessation of the pain.

Inflammation in the interior of bones.—When the bones are thus affected, the treatment is difficult and protracted. The excessive pain is, we have seen, sometimes arrested by the iodide of potassium, sarsaparilla, Dover's powder at night, and a warm bath occasionally. In cases of long standing, in which the patient is being worn out by suffering and broken rest, and in which internal treatment is of no avail, relief can alone be afforded by the operation of trephining the bone; there being sometimes abscess or deposits in the bone, the product of inflammation.

CHAPTER IV.

TREATMENT OF SYPHILIS IN INFANTS.

PROPHYLACTIC TREATMENT.

No right-minded person, actually labouring under gonorrhœa or chancre, whether simple or indurated, would ever think of marrying. As gonorrhœa or simple chancre, however, leaves no constitutional taint behind, there is nothing to forbid marriage after its cure. It is different, however, with indurated chancre; for the person is liable to become constitutionally infected, and in a condition, therefore, to procreate syphilitic children; and this tendency he retains long after the disease appears to be cured. Indurated chancre, we have seen, is not necessarily followed by constitutional infection. If, therefore, under proper treatment, the chancre has healed, and all induration of the cicatrice has disappeared, and if, for eight months or so after this, the patient has continued free from secondary symptoms, he may marry without much dread of propagating a diseased family. When constitutional infection has actually supervened, it cannot be safely admitted that the person will be free from the tendency to transmit the disease, until long

after all his symptoms have disappeared, though even then there is still danger. Under such circumstances it would, perhaps, be too much to forbid marriage altogether; but certainly the medical man ought to insist on the necessity of a mercurial course, if the patient has not been for some time previously subjected to treatment.

But let us suppose an infected person already married, what is to be done? If pregnancy has not taken place, the infected party—husband or wife—should alone be treated; but if pregnancy has already taken place, it will be necessary to subject both man and wife to treatment. If it is the man who was originally infected, we treat him, in order to obviate any further prejudicial influence which connection with his wife during pregnancy might, by possibility, exert on the fœtus, and in the hope of saving his future children from infection;—the wife, we treat in order, as far as possible, to counteract the poison transmitted from the father to the ovum at the time of conception, and to guard her from infection by the fœtus, which results from that conception, and which may happen to be infected. If it is the wife who alone is constitutionally infected, we need treat her only. The mercurial treatment of the wife should be pushed without fear, as far as she can bear it. There is a prejudice against giving mercury to a pregnant woman, lest it may kill the fœtus; but experience shews that there are no good grounds for the sup-

position. It has been well observed by Mr. Langston Parker, that by treating an originally and apparently still healthy woman, pregnant by a diseased husband, the infant may possibly be born healthy; that by treating the originally-diseased mother, there is some chance of saving the infant from being born diseased; but that there is no chance at all in those cases in which the previously-healthy mother has become infected after conception, through the medium of the fœtus, to which disease has been transmitted from the father.

If both father and mother be diseased before conception, the materials—semen, ovum, and blood—out of which the fœtus is formed are all syphilized; the infant, therefore, cannot fail to be diseased.

There is a good chance, but still not a certainty, that the infant may be sound, if the mother has only become infected, and that in the ordinary way of transmission by chancre, after conception, and if she has been appropriately treated.

A woman may have primary sores on her genitals at the time of parturition. The infant is, therefore, exposed to inoculation at birth, though this is not so common a mode of infection as has been supposed. And if, in a given case, it is the only mode by which the infant has become infected the disease will prove less dangerous than the true congenital syphilis. Instead of chancres there may be mucous tubercles on the woman's parts, into which the

chancres may have been transformed on the supervention of constitutional infection. The infant may be inoculated by contact with these mucous tubercles, but in such a case it is likely that the infant has been already infected in the uterus, and that with the true congenital syphilis.

If it is only at the time of labour that the practitioner ascertains that the woman's parts are diseased, all he can do is to cauterize the sores with the nitrate of silver, and keep the affected surfaces well smeared with grease or oil. Immediately after birth the infant must be carefully washed, particular attention in doing so being directed to the eyes, nostrils, mouth, anus, and genitals. If any excoriation should exist it must be touched with the nitrate of silver.

We have seen how a healthy infant may be infected by a hired wet nurse, who herself may have been originally infected by a nursling as well as by chancre in the usual way. Too much care, therefore, cannot be taken to assure ourselves of the healthiness of the woman selected as wet nurse. But the infant's own mother ought never to abdicate the functions imposed upon her by nature, if she has the milk to give.

CURATIVE TREATMENT.

When an infant evidently infected with syphilis is brought before us, we have first to determine whether it be a case of acquired or of true con-

genital syphilis. The treatment of acquired syphilis in the infant, which is of rare occurrence, is to be conducted on the same principles as that in the adult. If there are primary sores, we endeavour to determine whether they be simple or true chancres, and act accordingly. If the case is found to be one of true congenital syphilis, we must lose no time in commencing the mercurial treatment.

By giving mercury to the nurse, an impression may be made through the medium of the milk on the infant; though this cannot, for obvious reasons, always be done, and besides, ought not to be depended on in a severe case. Iodide of potassium given to the nurse operates more strongly on the infant than mercury given in the same manner.

An infant may be brought under the influence of mercury by giving the medicine internally or applying it externally by frictions with mercurial ointment, or by baths of a solution of the bichloride.

Mercury may be given internally in the form of iodide of mercury, in doses of a quarter or half a grain two or three times a day rubbed up with sugar; or in the form of the bichloride, commencing with the forty-eighth of a grain three times a day, in solution, and mixed with syrup and mucilage. The dose may be gradually increased to one-thirty-second or one-twenty-fourth of a grain.

External employment of mercury.—A good way of applying the mercurial ointment is by means of a

flannel knee-cap smeared with the ointment daily, as described for adults, at p. 121. For baths, a solution of the bichloride in the proportion of ʒ ss. or ʒ j to the whole water of the bath is used, hydrochlorate of ammonia being added to promote the solution. Sponging the infant's body with the solution (gr. j — ij to ℥ viij) may be conveniently substituted for the bath.

When the symptoms are of the same character as those designated tertiary in the adult, the iodide of potassium is indicated instead of mercury—for example, in subcutaneous tubercles running into suppuration, in ulcers and in coryza.

Local treatment.—As obstruction of the nasal fossæ prevents the infant from sucking, it is of great consequence to endeavour to relieve it. The nostrils should be washed out by injection with a solution of the bichloride of mercury, gr. i — ℥ viij, three or four times a day. After each time, calomel should be blown into them, and then some of the ointment of the iodide of mercury introduced by means of a hair pencil.

When the face is covered with crusts, they are to be softened by water dressings or poultices, and removed. The affected skin thus exposed, is then to be bathed with the bichloride of mercury lotion, and afterwards anointed with the iodide of mercury ointment.

Lesions of the mouth are to be touched with the nitrate of silver in order to prevent contagion and

to diminish the irritability of the mouth, so that the infant may be able to suck.

Mucous tubercles in the region of the genitals and anus are to be washed with the diluted liquor sodæ chlorinatæ (ʒ ss. — ℥ viij) twice a day, and after that dusted with calomel.

CHAPTER V.

TREATMENT OF NON-SPECIFIC SORES, VEGETATIONS, &c.

NON-SPECIFIC SORES.

Sores occurring on the genital organs, we have seen reason to conclude, are not always specific in character, though but too frequently considered as such. A distinction ought, therefore, to be drawn between simple sores and those which are truly venereal, especially syphilitic, and liable to be followed by a train of after-symptoms, in consequence of the absorption from them of a specific poison into the system. It is most important, at the commencement of the treatment of sores on the genital organs, to determine, as far as possible, their character—whether venereal or non-venereal; and if venereal, whether syphilitic or non-syphilitic; in other words, whether the sore before us be one which requires for its cure merely simple, mild, unirritating local applications, with attention to the general state of the health, or whether it requires a specific plan of treatment. Those who have had much practical experience in this department of our

profession must admit that this is a question which, in many instances, it is almost impossible to decide off-hand. From my own experience, I do not believe that we can always discriminate at once, and with entire certainty (whatever may have been written or said on the subject,) those sores which will be followed by secondary symptoms, those which, though venereal, will not, and those which are really non-venereal. Thus, it is frequently found that, in some states of the constitution, a trivial excoriation, having no venereal origin whatever—by this I mean, not derived from impure sexual intercourse,—if mismanaged, or irritated by the application of over-stimulating or unctuous substances, is liable to be altered in character by the unhealthy inflammation thereby excited, and made to assume a suspicious appearance; whereas a really syphilitic sore, scarcely attracting notice, being left to itself, often heals spontaneously, though it may be followed by secondary symptoms.

It is, therefore, wrong to be too hasty in pronouncing sores syphilitic, and forthwith to administer mercury. In the worse alternative, nothing is lost by a little delay; whilst, if the originally simple non-venereal or non-syphilitic sores are treated as specific, by the uncalled-for administration of mercury, &c. much mischief may be done. How frequently do we see a common graze or cut finger put on a bad aspect, with inflammatory induration around it, and shewing little disposition

to heal: the same thing is often observable in a simple abrasion or excoriation of the delicate investing membrane of the glans or inside of the prepuce. We ought, therefore, always to keep in view the known indisposition, which a sore or ulcer, in certain states of the constitution, shews in putting on the healing or reparative process, and not expect some ulcerations of the genital organs to differ from ulcerations elsewhere.

It is a fault too frequently committed to consider the generality of ulcerations of the genitals met with in practice as truly syphilitic or at least venereal. We do not, I fear, take sufficiently into consideration the liability of these organs to the same mechanical and chemical injury as other parts. I have, over and over again, seen sores, which had been pronounced syphilitic, heal under the simplest possible treatment,—no specific plan having been adopted; and I have had opportunities of watching the result,—no secondary symptoms have shewn themselves in these cases. Had mercury been administered, and irritating applications been had recourse to, the result might probably have been different. The balance of the system would, at least, have been unnecessarily disturbed, and an undue susceptibility to morbific causes created.

VEGETATIONS.

All the treatment required for these simple growths is to snip them off with a pair of scissors,

together with a portion of the mucous membrane or skin, whence they grow, and to touch the wound with nitrate of silver or sulphate of copper. If incompletely removed, they will reappear. No general specific treatment, such as the mercurial, is called for or of any use.

CHAPTER VI.

TREATMENT OF GONORRHŒA, GONORRHŒAL OPHTHALMIA, AND GONORRHŒAL RHEUMATISM.

GONORRHŒA.

It is requisite, in commencing the treatment of all discharges from the urethra, to determine their probable source, and thus endeavour to distinguish those which do not occur from impure sexual intercourse from those which have a really specific origin. For frequently, too frequently indeed, much constitutional disturbance is occasioned by the indiscriminate and unnecessary use of specific remedies.

If a case of gonorrhœa in the male comes under the notice of the surgeon at the very commencement of the running, an attempt may be made to cut the disease short by copaiba or cubebs, and by the use of an injection of a solution of nitrate of silver or chloride of zinc (gr. x — xx — ℥ j). That the gonorrhœa is at its commencement, is indicated by the discharge being merely clear mucus, streaked with white—not yet puriform—by the slight pouting of the meatus, by the vascular injection of the

mucous membrane of its lips, and by the tickling sensation in the urethra.

Cubebs and copaiba.—I consider the balsam of cubebs, prepared by Messrs. Blake and Sandford, of 47, Piccadilly, one of the best forms for the exhibition of that pepper, and prefer it to any other as the most reliable. It is given in doses of ♏ x to xxx—mixed with mucilage and water. It may also be administered in combination with copaiba and small doses of castor oil. It makes a not disagreeable emulsion. As a general rule in practice, I abstain—as far as possible—from prescribing cubebs and copaiba, and in any case I am averse to their administration in large doses, for I find that every possible advantage is, in general, gained from the smaller doses. Small doses, in fact, tell with equal effect, and may be given, when necessary, for a lengthened period, without incurring the injurious effects above alluded to. The combination of copaiba, oleum ricini, and dilute sulphuric acid, is sometimes useful:—

℞ Copaibæ ♏ x.
Ol: Ricini ℈j.
Vitelli ovi q. s.
Aquæ destillatæ, ʒ x.
Acid. sulph. dilut. ♏ v.
Syrupi ʒ j.
F. Haustus.

Even before gonorrhœa has distinctly declared itself, if there is any reason to fear that infection

has taken place, the nitrate of silver or chloride of zinc injection may be had recourse to. In applying these strong injections it is always best for the surgeon to operate himself. One operation properly performed is sufficient. The passage having been washed out by first voiding the urine, the surgeon presses on the urethra, in front of the scrotum, while he injects, in order to prevent the solution passing much beyond the navicular fossa, for it is to be remembered that the inflammation of the mucous membrane commonly does not extend further back than that part of the urethra, or two or three inches from the meatus at most. The syringe should contain two drams of the solution. Two or three syringefuls are to be thrown in—the first to cleanse the passage in order that the next may act effectually on the mucous membrane. The second syringeful is to be retained three minutes by pressing the point of the thumb over the meatus, and, when the solution is allowed to escape, care should be taken that it comes into contact with the lips of the meatus. If judged necessary, a third syringeful may be thrown in and managed in the same way.

When purulent secretion is once fairly established, there is seldom much probability of arresting its progress by the use of the nitrate of silver or chloride of zinc injection. Besides, there is danger of extension of the inflammation to the deeper parts being excited. Still, the practice may be had

recourse to in a few exceptional cases—cases, we may suppose, of emergency—where time is of moment, and where there may be other pressing circumstances calling for its use. In proposing the injection to the patient, however, the risk incurred ought always to be fully explained to him. Indeed, it appears to me that some discouragement ought rather than otherwise to be thrown upon the practice, for, if had recourse to indiscriminately, we must expect mischief to arise from it occasionally. And, let me repeat, that though it may succeed now and then, the practice is uncertain in its result.

Injections of this kind have been blamed for causing stricture, but this can scarcely be the case if care be taken not to allow the injection to pass beyond the navicular fossa, for strictures occur further back. It is true that increased congestion and swelling of the mucous membrane of the urethra occasioned by the injection cause some constriction of the passage at the time, but this soon passes off.

If intense inflammation has already come on, which it may do as early as the second day after the impure connection or later than the fourth, the nitrate of silver or chloride of zinc injection is contraindicated as well as the copaiba or cubebs internally. The inflammation must be met by rest, spare diet, avoidance of stimulants, general warm bath, warm hip bath, and warm fomentations. Leeches or cupping on the perineum may be called for. After the inflammatory stage has subsided the

case generally yields to the ordinary treatment by weak astringent injections (alum or sulphate of zinc gr. ij — ℥j), along with the internal use of copaiba or cubebs and the tincture of the sesquichloride of iron.

In young men gonorrhœa is generally very severe, rendering the above-mentioned antiphlogistic treatment strictly carried out especially necessary. An emeto-cathartic mixture in addition is very useful. Two grains of tartar emetic and an ounce of sulphate of magnesia dissolved in half a pint of camphor mixture is a good form, and of this an ounce or two may be taken every four or six hours; in some cases colchicum is of service. In delicate strumous young men discharge sometimes continues for a long time; in such cases it is on the whole better to rely upon mild astringent injections with remedies directed to the improvement of the general health.

In mild chronic discharges or gleet, terebinthina Chia may be given two or three times a day. A quarter or half a grain of the turpentine, with a grain each of rheum tostum and soda exsiccata, make a convenient pill; or, upon the same principle, ♏ x — xx — or xxx of essence of spruce, in any light, bitter infusion. In a case, which had been going on for some time, the discharge ceased, after eating, for a few mornings running, two or three of the budding tops of young fir trees. The fresh country air may have assisted in promoting the cure.

Simple glando-preputial gonorrhœa, or balanitis, admits of being radically cured by local treatment. All that is required is to keep the parts clean, to drop into the balano-preputial cavity a five-grain solution of the nitrate of silver once or twice a day, and to keep the surfaces of the glans and prepuce apart by the intervention of lint, smeared with diluted red precipitate ointment.

A chancrous sore at the meatus of the urethra is sometimes met with supervening on what at first appeared to be merely gonorrhœa, or balanitis. As a local application to the sore, I find the strong black wash, with opium, agree better than anything else. At the same time, I endeavour to check the urethral discharge, and to prevent it, as far as possible, from coming in contact with the sore. For this purpose a thin layer of lint to the sore, and a bit of goldbeaters' skin over the surface of the glans, form a sufficient protection. In some cases of gonorrhœa, instead of the ulcer at the urethral orifice, numerous pustules or herpetic vesicles appear on the glans, and on the inside and orifice of the prepuce.

In the treatment of *orchitis*, *epididymitis*, *hernia humoralis*, or *swelled testicle*, rest, low diet, antimony, with saline aperients, to lower the system—leeches and warm fomentations to the part, which is to be supported by a suspensory bandage—are the remedies first indicated. Ice-bags, instead of warm applications, are recommended. My own expe-

rience, however, leads me to prefer the soothing treatment. After the acute stage of the inflammation has passed over, the swelling of the testicle is sometimes very slow in subsiding. In this case the reduction of the swelling will be promoted by giving the patient, for a short time, small doses of blue pill, with antimonial powder, thus :—

℞ Pil. hydrarg.
Pulv. antimonialis, āā gr. ij.
Confect. opii gr. iij.
F. Pilula, bis terve die sumenda.

Mild mercurial ointment, with camphor, is a useful auxiliary in hastening the absorption of lymph. Subsequently, moderate pressure by means of strips of plaster properly applied, will be found useful. As regards induration of the epididymis this may remain, and frequently does so for a long time. In some instances it may never entirely subside. So far this is of no great moment, for the induration or hardened knot is not of the testicle itself, but merely of the coiled portion of its excretory duct, thickened by lymph effused between its coils.

In the female, gonorrhœal inflammation may affect the urethra, but that is not its sole or most ordinary seat. The entrance of the vagina is the part most commonly first affected, less frequently the vulva and uterus. But all the parts eventually become more or less implicated. The discharge from the os uteri often continues long after it has ceased in

the vagina. In the treatment of gonorrhœa in the female, we do not find copaiba and cubebs of the same efficacy as in the male. In the acute stage rest and general antiphlogistic treatment are necessary, whilst locally we use fomentations and slightly astringent injections. Afterwards, stronger astringents may be had recourse to. The solution of nitrate of silver gr. x. — ʒ j is a useful injection. In the gonorrhœa of females, where the whole mucous surface of the vagina is implicated, much benefit will be derived from the free and often repeated irrigation of the part with dilute lotio plumbi, or even tepid water. If there be much heat and inflammation, the frequent injection of iced water is of especial service.

When the state of the parts allows of it, it will be necessary to examine, by means of the speculum, whether the mouth and neck of the uterus be the seat of discharge, for, in that case, pains must be taken to ensure the free application of the injection to those parts by means of a syringe adapted to the purpose.

As the male is subject to inflammation and swelling of the testicles, so the female affected with gonorrhœa is sometimes attacked with inflammation of the ovaries. This is to be treated by the application of leeches and warm fomentations over the region where the pain is complained of.

In the male, besides the ulcers by the side of the frenum, before-mentioned, matter may form in any

part of the corpus spongiosum. In such a case, we must, as soon as fluctuation is felt, open the abscess to prevent its bursting into the urethra. From excess of inflammation matter may also form in deeper seated parts, behind the deep perineal fascia. The formation of the abscess is generally preceded by much constitutional disturbance, such as fever, rigors, &c.

Should this untoward complication occur, it is always desirable to give vent to the matter as early as possible, for, locally, there is great distress about the neck of the bladder, difficulty in voiding the urine—or complete retention, from the pressure of the abscess. In such cases there is some obscurity in the diagnosis, for it is not always an easy matter to determine the existence of matter, by the touch, however delicate this sense may be, owing to the depth of the perineum, and to the abscess being bound down behind the deep perineal fascia.

Should the symptoms lead to the conclusion that there is abscess in the situation above-mentioned, relief may be afforded by puncturing the perineum with a broad lancet, thrust sufficiently deep to penetrate beyond the fascia, and thus reach the matter. If the puncture be made in the proper direction, there is but little danger of hæmorrhage. Should the simple puncture not succeed, there is then no alternative, but cutting carefully through the perineum down to the fascia. This, however, is rather a formidable operation, and is not unfrequently

attended with hæmorrhage. While still a student, I was requested to see a gentleman at Kensington, suffering much distress from pain in the region of the neck of the bladder, strangury and retention of urine, consequent on acute inflammatory gonorrhœa. He had had rigors, fever, &c. My first impression as to the nature of the case was, that abscess had formed in the region of the bladder. At this period of my professional life, however, I did not feel justified to act on my own responsibility in so grave a case. I, therefore, returned to town at once, and requested the assistance of the late Mr. Henry Jeffreys, at that time one of the surgeons to St. George's Hospital, and well known to the patient. Mr. Jeffreys accompanied me back to Kensington, and, having confirmed my diagnosis, at once made an incision into the perineum through the deep fascia, which gave exit to matter. The patient was thus relieved from all his suffering, and made a rapid recovery.

We sometimes meet with deep-seated chronic abscess attended with repeated rigors and anomalous, aguish-like symptoms. Sometimes there is sloughing abscess, in which death may take place from putrid poisoning of the system, as appears to have happened in the following case :—

I was called early one morning to see a gentleman, between fifty and sixty years of age, lying in a state of insensibility. My attention being drawn to the genital organs, I found the scrotum, prepuce,

and skin of the penis enormously swollen, and learned that the patient had had severe rigors. These, with other symptoms, led me to suspect the existence of abscess. I ascertained that the patient had urethral discharge, which, however, he had most pertinaciously and successfully concealed, so that the true nature of his case was not found out until he had become insensible. After consultation with Mr. Charles Hawkins, and assisted by him, I made numerous small incisions through the distended skin of the scrotum and penis, by which escape was given to an offensive, stinking gas. An incision was also made in the perineum, through which the finger could be thrust into the cavity of a deep, sloughy, putrid abscess. The patient sank within a few hours. Had medical assistance been called in earlier, and the nature of the case acknowledged, a timely incision would, in all probability, have prevented the fatal event.

GONORRHŒAL OPHTHALMIA.

The local treatment for gonorrhœal ophthalmia consists in the free incision of the chemosed conjunctiva in a direction radiating from the cornea, scarification of the palpebral conjunctiva, and the application of a ten or twenty-grain solution of the nitrate of silver, or even pencilling the conjunctival surface with the solid caustic. The application of the nitrate of silver should be repeated daily, or every other day.

The eye is to be frequently cleansed of matter in the interim, by bathing it with a tepid solution of alum (gr. ii — iv — ℥ j), and the edges of the eyelids are to be anointed with diluted red precipitate ointment at bed time.

If the patient is pretty strong it may be well to commence the treatment by v. s. to ℥ xii or ℥ xvj— or by the application of leeches round the eye, followed by calomel gr. iij, with Dover's powder gr. x, at bed-time, and black draught the next morning.

GONORRHŒAL RHEUMATISM.

In the treatment of gonorrhœal rheumatism, we must not be afraid to cure any discharge that may exist. On the contrary, the patient is not safe from new attacks as long as the discharge continues. The following is an exceptional case:—A. B. aged twenty-five, took powdered cubebs in very large doses, which checked the discharge in two or three days. About the fourth or fifth day after this an ophthalmia came on, which was followed in a day or two more by inflammatory swelling of the knees, ankles, and wrists. The patient was laid up for six weeks with rheumatic fever, and afterwards suffered from chronic rheumatism.

In rheumatism of the joints the application of leeches is often necessary. Calomel (gr. ii — iii) with Dover's powder (gr. x) should be given at bed-time, and the bowels kept open by black draught in

the morning. After this blisters over the affected joints are useful, or painting with tincture of iodine. Pressure, to promote the absorption of effused fluid in the joint, is sometimes subsequently called for.

Gonorrhœal iritis requires the same treatment as ordinary rheumatic iritis. Abstraction of blood if the patient is strong and the inflammation severe—mercurialization,—and belladonna to the eye.

CHAPTER VII.

TREATMENT OF DISCHARGES FROM THE URETHRA NOT OF A SPECIFIC GONORRHŒAL CHARACTER.

Considering the various circumstances, before indicated, under which simple discharges from the urethra may occur, it is obvious that no one particular mode of treatment can be laid down.

The removal, rectification, or amelioration of the conditions by which the discharge may have been excited, or on which its continuance depends, will frequently be followed by improvement or recovery; but it may be necessary, in addition, to make use of a weak astringent injection, on the same principle that we find it necessary to make use of an astringent eye-water in cases of puro-mucous inflammation of the conjunctiva, no matter by what cause, or under what circumstances, the inflammation may have been excited.

CHAPTER VIII.

TREATMENT OF BUBOES.

SUPPURATING BUBO ATTENDING SIMPLE CHANCRE.

Before suppuration has taken place, an attempt may be made to resolve the inflammatory swelling by rest, laxatives, abstinence, and cooling lotions, though this will seldom prove successful. Mr. Hunter thought that resolution could be effected only by mercury, and the more surely the more mercury given. He applied the mercury by inunction at a place from which he expected it would be carried by the absorbents to the affected glands. As no distinction was drawn between the kind of bubo under notice and the indurated bubo which attends true syphilitic chancre, and does not usually suppurate, this practice seemed to be ratified by experience. The indurated chancre which did not suppurate under this treatment would still more certainly not have suppurated if it had not been had recourse to. However this may be, mercury, in suppurating bubo, attending simple chancre, seems rather to promote suppuration than resolution, and is wholly uncalled for.

When suppuration must take place apply poultices, and when the skin has become thin open the abscess with the lancet. After this continue the poultices for a few days, and then apply dressings according to circumstances. The chancrous ulcer left by the opening of the abscess will probably require to be cauterized like the original simple chancre on the genitals, in which the bubo originated.

INDURATED OR TRUE SYPHILITIC BUBO.

Indurated bubo sometimes remains indolent, neither resolving nor suppurating. In this case blisters, tincture of iodine, rubbing with solid nitrate of silver, iodide of potassium ointment, camphorated mercurial ointment, compression, have all been tried, but I agree with M. Diday, that it is better to dispense with local medication altogether, as the bubo in this case seems to be rather connected with constitutional infection. No confinement is required.

BUBOES UNACCOMPANIED BY ANY SORE ON THE GENITALS, AND NOT FOLLOWED BY SECONDARY SYMPTOMS.

In this case rest, abstinence, aperients, and cooling lotions are to be prescribed in the hope of promoting resolution. If this object fails to be attained, then the case is to be treated as one merely of simple abscess.

SYMPATHETIC BUBO ATTENDING GONORRHŒA.

Sympathetic bubo supervening in cases of gonorrhœa, whether in the male or female, does not usually require any particular treatment. Resolution is pretty certain to take place.

CHAPTER IX.

TREATMENT OF PHAGEDENA.

Bubo, as well as the chancre from which it proceeds, may become phagedenic. A phagedenic ulcer is not a distinct species. Suppose two different individuals have contracted chancres from the same source of infection, the sore may in one become phagedenic, whilst in the other, who is perhaps in better health, it may remain simple. On the other hand, matter from a phagedenic ulcer may be inoculated into a healthy subject, and yet the chancre produced will be of simple character, and follow the ordinary course. The individual constitution of the patient, therefore, appears to be that on which phagedenism depends—not the quality of the virus, which gave rise to the sore. Phagedena, in fact, is generally met with in cachectic subjects, in whom there is excessive irritability of the nervous system.

In the treatment of phagedena, therefore, a very important point is to endeavour to correct that

peculiarity of constitution, and thus neutralize the predisposing cause. It would appear that in many of the cases of spreading sores, of the character under consideration, the urinary secretion is faulty. Hence it is desirable to look to the state of the urine. Mercury is injurious in phagedena. Tonics, such as iron and quinine, with good air, are necessary. Opium is especially efficacious, being required to soothe the accompanying pain. But it is to be observed that, without local treatment, these general remedies are insufficient.

The local treatment consists in destructive cauterization of the affected part. For this purpose, the potential cautery is employed by some, the actual cautery recommended by others. The nitric acid and sulphur paste, and the chloride of zinc paste, are the caustics most in use; but the hot iron does not cause such prolonged pain as these caustics do. If an open bubo becomes phagedenic, it should be cauterized; for which purpose the hot iron is recommended, when the sore is large; but when small, the chloride of zinc paste, kept applied to the part for an hour or two.

Cases of serpiginous phagedenic chancre extending from the prepuce along the penis to the pubes, and thence downwards on the thigh, and upwards on the abdomen, which were of long standing, and had resisted various kinds of treatment, are

related by M. Rollet of Lyons, in which he applied the actual cautery, whereupon cicatrization commenced, and was nearly completed in a month.

CONCLUSION.

Reflecting on what has been said in the preceding pages, the idea suggests itself that simple chancre and gonorrhœa are not so specific in their nature but that they might originate anew under favouring conditions from any promiscuous sexual intercourse; whilst, as regards true syphilis, the case is different. The latter appears to be of too specific a character to be the result of a spontaneous reproduction. It seems to be always transmitted from a pre-existing virus. Of venereal affections, indeed, syphilis stands out as that which possesses the specific characters of an exanthema, with the peculiarity that the poison is not received by infection *in distans* but only by inoculation, and that when the disease has once taken possession of the system, it does not admit of being easily or quickly eradicated. Nay, so completely is the whole system tainted, that even the seminal secretion, at the same time that it fecundates the ovum, imparts to it the poison, which, in due course, manifests its effects with augmented and peculiar virulence in the infant; from which again, while still in the uterus, the disease may be communicated to the before healthy mother; and after birth, propagated like an epi-

demic throughout a whole neighbourhood by the simplest accidental contact.

As to the prospect of setting limits to the spread of venereal diseases, if not eradicating them altogether, the discouraging conclusion is forced on us, that the promiscuous sexual intercourse, by which they are chiefly propagated, is an evil too inseparable from our nature in the present state of Society to be as easily reached and restrained as the sources of those other diseases, the prevalence of which has been of late so successfully checked by sanitary measures.

Finis.

WESTMINSTER:
PRINTED BY THOMAS BRETTELL, RUPERT STREET, HAYMARKET.